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REPORT  
OF  
INTERAGENCY OUTDOOR RECREATION  
VISITOR USE MEASUREMENT  
SYMPOSIUM

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## Agencies Represented

Alaska Division of Parks  
Career Development Center - Anchorage Borough School District  
Bureau of Outdoor Recreation - Alaska  
Greater Anchorage Area Borough Parks and Recreation  
Alaska Department of Highways  
Bureau of Outdoor Recreation - Seattle  
City of Anchorage Parks and Recreation Department  
University of Alaska  
U.S. Fish and Wildlife Service  
U.S. Forest Service  
Alaska Department of Fish and Game, Division of Sports,  
Fish, and Wildlife  
National Park Service  
Kenai Peninsula Borough  
Alaska Division of Tourism  
Southern Illinois University  
Bureau of Land Management

## Objectives of the Symposium

1. To identify the benefits of an interagency recreation data collection system in Alaska.
2. To gain an understanding and acceptance of the interagency recreation data collection concept.
3. To identify some alternative recreation data collection systems.
4. To list a set of recommendations for future followup and possible implementation of a statewide, coordinated outdoor recreation data collection and reporting system.

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Summary and Conclusions

In conclusion, the symposium was considered by most people to be a success. Not all the key people who were invited were in attendance, but most of the Federal and State agencies with major responsibilities for outdoor recreation management in Alaska were represented.

Throughout the symposium, the problems of collecting, locating, and utilizing adequate, comparable visitor use data were emphasized along with the ultimate benefits to management in having comparable, statewide, interagency visitor use data. Essentially, all or major portions of each of the four symposium objectives were accomplished.

One important outcome of the sessions was the recognition that it would probably be very difficult, if not impossible, to get all agencies, especially those with existing highly sophisticated collection procedures, to convert to an "Alaskan" system of collection and reporting. A more workable approach evolved to a system of conversions based on standardized definitions to "create" comparable data between agencies.

The BOR in the Pacific Northwest has accomplished a similar project with a planning model being the resultant outcome. An approach of this type was considered to have potential here in Alaska.

Each representative that expressed an opinion at the close of the symposium agreed that the public and managing agencies of Alaska's outdoor recreation resources would benefit from a coordinated system of data collection and reporting. The symposium concluded with the understanding of the present data problems and a general recognition that coordination, data reporting, and meaningful recreation management could be achieved through a system of converting existing data (coupled with greater emphasis on data collection by the various agencies) to a product which is comparable between agencies. Also, there was some consensus that in order for a reporting system to be developed it would require an individual knowledgeable in recreation data collection methods, manipulation of data, aware of management data needs, able to communicate with many different agencies and with full time available to work on the project. The question of funding was also discussed, along with the concept of one or two agencies cooperating together as the leaders

in undertaking the project. Those agencies mentioned for this were the Bureau of Outdoor Recreation, the Division of Tourism and the Alaska Division of Parks. The Interagency Council for Parks and Recreation was also mentioned as a potential vehicle through which to reach high level agency decision makers and secure commitments for cooperation, thus increasing the probability of future implementation. (See panel discussion portion and recommendations.)

## Recommendations

Based on the information that was presented during the symposium and the discussion which followed during the panel discussion, the following recommendations are being presented here for future actions.

1. The concept of an interagency pooling of recreation data should be pursued by those agencies involved with outdoor recreation planning and management in Alaska.
2. That the Lieutenant Governor, through the Interagency Council for Parks and Recreation, provide the forum for initiation of action designed to establish an interagency effort for a data collection and reporting system. Most attendees felt that the initial thrust and overall coordination should primarily be a State responsibility.
3. That either one or several State and Federal agencies become principally involved with the leadership responsibilities. Those agencies mentioned were:

State Division of Tourism  
State Division of Parks  
Bureau of Outdoor Recreation

A logical approach to pursuing this concept is to identify or assign the responsibility to a single person or agency for purposes of initial organization, coordination and formalization. The basic preliminary step has been taken with the awareness created at the symposium. In order to define responsibility for pursuing the concept, those officials in management agencies who set policy and priorities must also be made aware of the concept and the desire of the working level people within the respective organizations before the concept can become a reality. The Interagency Council for Parks and Recreation headed by the Lieutenant Governor was mentioned as being the potential vehicle for this next phase approach.

The outcome of a meeting of the Interagency Council for Parks and Recreation designed around the above-mentioned concept may be one of several benefits or a combination of benefits. For example, the interagency council may determine that either the Task Force approach, a cooperative agreement among the various agencies, a definition of responsibility and assignment to one or more agencies or a pooling of funds for contracting purposes may be an appropriate next step toward implementation of the data reporting concept. The other option is, of course, that the council could decide

upon no action in which case the various agencies would continue along with our present inefficient data systems.

Those agencies which were either mentioned as having or stated having a self proclaimed interest in the leadership responsibilities were the Federal Bureau of Outdoor Recreation, the State Division of Tourism and the State Division of Parks.

It is the recommendation of this report, based upon the reactions of individual agency representatives at the symposium that the Interagency Council for Parks and Recreation take positive steps toward holding a meeting to analyze official viewpoints concerning this topic and analyze the various alternative "next step" procedures which may be available, with the ultimate goal being that of developing an outdoor recreation data system which can be used by all planners in the State for increased efficiency in Outdoor Recreation Management and public benefits.

## INTRODUCTION

The need for an Interagency Visitor Use Measurement Symposium was recognized once a general awareness of the overall state-of-the-art, relative to recreation management in Alaska, was obtained. The following is a brief encapsulation of past and present situations in Alaska which tended to indicate the desirability of an Interagency Recreation Use Data Collection and Reporting System, which was conceived as the ultimate objective with the symposium being the initial step toward achieving that objective.

- A. The Alaska Native Claims Settlement Act and the Statehood Act have created a situation where neither Federal or State outdoor recreation land managing agencies in Alaska are able to determine which lands they may ultimately have responsibility of recreation management upon.

As an example, the majority of the 300 million acres presently administered by the Bureau of Land Management will become either privately owned or managed by other Federal and State agencies. These have even been discussion of cooperative management responsibilities on some lands.

- B. Past and present outdoor recreation management has been limited because:

1. Alaskan recreation managing agencies have not had a clear-cut understanding of the public's desire for recreation experience (their needs and use characteristics).
2. Alaskan land managing agencies have displayed only a limited understanding of their responsibilities for providing high quality recreation experience opportunities. There is a need for agency role identification which would aid in insuring that the complex recreational needs of the user public are ultimately met.
3. Thus far in Alaska, there has only been a meager commitment (which has probably been inefficiently utilized because of a lack of a properly coordinated data base) on the part of land managing agencies to provide funds, manpower, equipment, and facilities to identify and make available a wide range of outdoor recreation opportunities.

Because of these circumstances (and probably others as well), an outdoor recreation management program that is positive and dynamic has not developed in Alaska. The combined efforts of recreation managing agencies in Alaska could result in seizing a valuable opportunity to form a strong outdoor recreation data foundation.

The timing is of particular significance now, where the land status is unsettled. Most Alaskan agencies are faced with idle recreation planning time (until the land status picture becomes firm) or the opportunity to begin now in developing a data base for future planning and land use decision making efforts by all agencies.

It was a result of the above type of thought process that the necessity for improved lines of communication for the purpose of identifying resource data needs for future outdoor recreation decisions evolved. The proceedings and recommendations of the April 1975 Interagency Outdoor Recreation Visitor Use Measurement Symposium are presented here for future analysis and reference. Hopefully, the symposium will lead to future interagency efforts toward increased cooperation, efficiency and professionalism in outdoor recreation management in Alaska.

SYMPOSIUM: AN INTERAGENCY OUTDOOR RECREATION VISITOR USE  
MEASUREMENT SYSTEM FOR ALASKA

Agenda

April 15, 1975

8:30 a.m.

Mr. Curt McVee:  
Welcome and Introductions  
BLM's involvement to date

Honorable Lowell Thomas, Jr.  
Lieutenant Governor, State of  
Alaska:

Introductory Address to  
Attendees

Mr. Curt McVee:  
Anticipated Benefits of  
the Symposium

Dr. Lou Waller:  
The Symposium

9:30 a.m.

Break

9:45 a.m.

Amy Paige:  
National Park Service case analysis  
illustrating the types of  
information needed and problems  
with the various agency approaches  
to data collection in use today.

10:15 a.m.

Dr. Wayne Thomas:  
Jurisdictional analysis  
of Alaskan agencies involved  
with outdoor recreation  
management and an interagency  
system for data collection.

11:45 a.m.

Lunch

12:30 p.m.

Dr. Dwight McCurdy:  
The interagency concept  
of outdoor recreation data  
collection and the costs/ben-  
efits of such a system to  
land managing agencies.

3:00 p.m. Break

3:15 p.m. Keith Shone:  
Case history with the BOR  
and various State/Federal  
land managing agencies where  
the interagency approach  
to data collection has  
been utilized - problems  
and successes with the system.

April 16, 1975

8:30 a.m. Dr. Dwight McCurdy:  
Alternatives available  
to Alaskan agencies with  
discussions on benefits  
of each.

9:30 a.m. Break

10:30 a.m. Panel Discussion (agency  
representatives). Analysis  
of alternative actions for  
initiation and implementa-  
tion of an interagency visitor  
use measurement system.

Richard Tindall  
District Manager  
Anchorage District Office  
Bureau of Land Management

I think I have probably met most of you at one time or another over the past three or four years so I won't dwell on a self introduction, but I did want to welcome you to the district and to what will hopefully be a very productive symposium. Yesterday, we were faced with a big disappointment in that Lowell Thomas, Lieutenant Governor of Alaska, called and expressed his disappointment at being called back to Juneau to take care of pressing state matters. He had planned on being a part of this symposium for some time.

Early this morning the second disappointment occurred when Curt McVee, State Director of the Bureau of Land Management, was called for jury duty and had to cancel his plans to also be a part of the symposium. Regardless, of these untimely occurrences, I feel confident that your time will be well spent in this two-day session.

I'm probably going to drop most of the responsibility for getting this symposium underway on the shoulders of the symposium coordinator. And I might just as well introduce him now. Dr. Lou Waller is responsible for getting this symposium off the ground, the first of its kind. I'm not going to dwell on Lou's pedigree's, although I am happy to say that in his background he does have a masters degree in forestry, which is close to my heart. But he has done a lot of study in outdoor recreation and especially in the area of outdoor recreation and water quality. Standing in for the Lieutenant Governor of the State of Alaska and also representing the Division of Tourism, one of the more important agencies in our State government, is Dick Montegue. Dick's background just prior to his recent appointment has been in the publication field having to do with tourism, guide books, and publications of Alaska.

Dick Montague  
Director, Division of Tourism  
State of Alaska

### Introductory Address to Attendees

Unfortunately, most of Mr. Montague's inspiring talk was not recorded due to technical difficulties. However, we have attempted to briefly paraphrase the points covered by Mr. Montague.

On tape: What I am going to say to you all today, you may not like. I am going to challenge you to take a broader view of the subject in which we are involved here, that is visitor use. I am going to ask you to use a word that some of you may not have heard before. It is Latin . . . homo ludens and it means man at play, not just out-of-doors in parks and forests, but indoors, at museums, cultural events and plays, the myriad of activities we think of as leisure time activities.

Paraphrased: Montague chastized the group for not paying attention to the commercial sector of the tourist service industry saying he did not recognize many of the people at the conference.

"Why are we so fragmented?" Tourism comes under five or six different departments in the State government and a dozen more Federal agencies. That's why nothing gets done." "No one's responsible and yet several of us are supposed to be responsible."

"Alaska is on the verge of an explosion in visitor interest and we're not prepared to handle them. Ten thousand to 15,000 recreationists are expected here this year."

He notes that National Geographic Magazine will feature a 60-page spread on Alaska this summer and it will be the greatest advertisement this state has ever had. We know it will attract people, but we don't know exactly who, where they are from, or what they will want to see and do here.

Visitor data is important to the planning of facilities and services, and we have virtually nothing. The meager statistics which exist account only for border crossings. Those who come into the state by air are not queried at all.

Montague points to the Hawaii system of visitor measurement as a matter of law. All incoming passengers, via ship or plane, must fill out a form for the Hawaii Visitors Bureau stating their point of departure, their ultimate destination, the purpose of their visit and length of stay. Alaska needs something like this. He is introducing a bill in the legislature for just such a system.

Amy Paige

Alaska Task Force  
National Park Service  
Anchorage, Alaska

### Agency Information Needs and Problems in Compiling Multi-Agency Data

I'm not quite sure that I'm the right person to speak about this subject as I'm sure a lot of people have a lot more experience with this kind of data. I wrote something down so that I would try to be able to cover everything that I had hoped to. Basically it seems to me there are many purposes to be served by collecting and recording the data on recreational uses and users. Some are peculiar to the special mission of the different land and resource managing agencies and to the special character of the resources involved. There are other purposes which are shared by a number of agencies and this suggests that it is worthwhile to try to achieve some coordination and uniformity among the agencies in methods of data collection and procedures for recording the needed information. My experience with recreational use data is limited to the assignment I was given to come up with projections of visitation to the proposed new parks and monuments in Alaska. The National Park Service is accustomed to providing Congress with projections of visitation levels for new park proposal areas as part of our legislative supporting documentation. I assume this is because the members of Congress consider the numbers of people an area will accommodate as the principal measure of the benefits of adding an area to the national system. I approached this task with considerable hesitation since there appears to be a basic conflict with provisions of the park proposals which call for establishing visitor carrying capacities as a means for minimizing environmental and social impacts of park establishment. Then, too, I tend to question the value of predictions for the future, particularly in Alaska where changes are occurring so rapidly and dramatically. I should make it clear I am not a statistician, and I don't have at my command the quantitative tools to accommodate all the variables which seem likely to be present in affecting all aspects of recreation use and demand. Someone else could probably have done these projections with much less agony.

Elsewhere in the country the Park Service makes projections for new areas by identifying a comparable area within the park system and applying a formula which relates the size of the population residing within a certain radius, the visitation levels at that comparable area and population growth projections and then extrapolates this to the new area. There seem to be many factors which would make this procedure inappropriate in the Alaska situation. There is little comparability between any of the park units in the lower 48 and those proposed in Alaska, both in terms of the type and variety of recreational resources and in terms of the relations between the regional resident populations and the source of recreational demand. There seems to be little relationship between the factors influencing current uses in the existing national park units and those likely to be influencing uses in the new proposed areas. The large number of out-of-state users which constitutes a major portion of visitors to Mt. McKinley National Park and Katmai can't be accommodated by this formula.

Putting aside for the time being the question of comparability of the new park areas to the existing Alaskan/national park area, I looked at other areas in the State managed by other agencies which might serve as models for which recreational use data was available, including the proposal areas themselves. It seems essential to determine, if possible, current use levels, even if the comparable area method had to be abandoned. I discovered that a considerable amount of data was available for national forests, refuges and for the State park waysides and recreation areas. Data was also available from the Bureau of Land Management for the campgrounds managed by the BLM along the highways and for the several canoe and hiking trails. By the way, these are estimates (the latter). The Bureau of Outdoor Recreation has used estimates for some of their river areas they are proposing. Then there was the State's Outdoor Recreation Plan, which included estimates of current use levels by region and type of activity and provided projections for future demand for various types of activities. It seemed like that should be more than enough data from which to develop a means for projecting visitation to the new park areas. I should also mention that I looked at the State visitor use data and the current figures are not broken down by region. By closer scrutiny of the previously mentioned data, I became aware of the utter impossibility of consolidating all this data into a meaningful whole. Each set of data seemed to be counting something different with different time periods and different standards of measurement. There appeared to be considerable variability in the reliability of the data as well. Some were based on actual counts, others on estimates, others on spot surveys. In some cases

characteristics of some users in other cases completely different characteristics of users, were noted. Different units of measurement were used. Length of the visitor day varied from one set of data to another, and sometimes within one set time, the time factors varied from one type of activity reported to another. In some cases only recreational use was reported while in others all uses are lumped as recreational. To be a bit more specific, I'll review some of the features of a few of these different sets of data pointing out some of the problems and advantages of each. Data on recreational uses in Mt. McKinley, Katmai, and Glacier Bay are based on actual counts rather than estimates. The reporting units include number of visits, visitor hours, and overnight stays. Highway counters are used to obtain data on numbers of vehicles and constant multiplier factors are applied to derive number of visitors from the vehicle count. Tabulations are made by mode of arrival. The back country use permit system in Mt. McKinley provides data on location of users, the number and size of parties, origin of visitors, overall length of stay. But these characteristics are not routinely reported in the monthly public use reports. Types of recreational activities noted are limited to designations as tent campers, recreational vehicle campers, mountain climbers, back country users, and hotel guests. There is no tabulation of numbers who might be involved in such activities as fishing, wildlife observation, photography, nature studies, skiing, bicycling, whatever, categories which are used by other agencies reporting recreational uses. Except for the special computer analysis of back country and campground users, there is no routine reporting of origin of visitors in the park areas--a visitor characteristic which would have been useful in the attempt to try and determine or assess some of the economic impacts of the new park areas. It seemed important in an earlier effort when I was involved in preparing sections of the environmental impact statement to figure out what contribution out-of-state tourists made to Alaska and the only concrete data seen were the visitor statistics at McKinley, but then I could find no breakdown by origin of visitors, so I couldn't tell how much of the visitation at McKinley actually brought in new dollars and how much of that could be ascribed to expenditures that the State reports for tourists. I'm not quite sure if I'm making myself clear, but it would be important, it seems to me, in all cases to make some distinction between the origin of visitors for economic analysis and also for planning types of recreational development.

Going on to the data that I discovered that existed for the national forest, the Chugach National Forest data is available on recreational uses for each subdistrict by the kinds of

sites and kinds of activities with a code used to identify a specific activity and percentages of the total each activity comprises tabulated for the year. In the annual tabulations, visitor days were reported to the nearest hundredth, a problem, in my opinion, where use levels remain relatively low and even a small change can represent a significant one. No data is provided on origin or residency of users and I believe the length of the visitor day varied for each type of activity, so that a five-minute stay at an interpretive site might constitute a "visit," whereas an 8- or 12-hour period for camping or fishing might constitute a "visit." You have to know all the codes to figure out what the comparable unit is. Data for public use of the national wildlife refuges is reported by activity hours for various categories of activities. Data appear to be based on estimates rather than any actual counts or surveys. The origin or residency of the users is not provided. While categories of activities are mostly detailed for the refuges, there seems to be a lumping together of what might be considered local subsistence or nonrecreational uses with the recreational uses of visitors from outside the region. The unit of measurement - "activity hours" is the most difficult one to deal with in my view. Data on recreational use of the State parks is reported for each facility by resident and nonresident status of each user and the reporting unit is a visitor. Visitor counts are taken during regular visits and license plates on cars are used to obtain data on residency status. This is just a brief review of some of the variability in the data and the difficulties which would confront anybody trying to integrate the information into a rational whole for any number of purposes. Having emerged from the effort to create a foundation from which projections for visitation to new parks could be made, I'm not at all sure that data on current uses can be used as a basis for making projections. Nor am I sure how all of the differences in methods of data collection and reporting can be resolved. Presumably there are others here more qualified to address the issue. Research on characteristics of leisure time participants reported by Park Service sociologist Don Fields at the University of Washington, and others, suggests that the location of recreational activities and the focus demands are probably interchangeable; that is, the people who engage in various outdoor activities or other leisure time pursuits frequently are seeking to satisfy a variety of social needs equally as much as seeking a particular recreational experience. This would suggest that the actions of the managers of land and wildlife resources could influence the location of uses to a considerable extent, depending upon publicity given an area, extent of the development of facilities, especially those facilities which ease problems of access in any way. This may become

even more likely in Alaska in the future if the urban population grows as a result of in-migration to the State. These newcomers may be more susceptible to land managers choices about which recreational resources they should use. Although I suspect that in Alaska there will continue to be a good many people seeking very specific outdoor recreational experiences in specific areas, and that a good many Alaskans will seek experiences beyond the reach of bureaucratic control.

There appear to be problems associated with all methods of obtaining data and our obvious need is for reporting data in sufficient detail so as to be useful for varied needs of land and resource managers and planners. It seems to me to be extremely valuable to determine at least some common and uniform unit of measurement of time periods, types of activities, and types of uses and users, if not for making projections of future demand. Consistency in data collection and reporting can provide sound basis for assessing the social and environmental impacts of recreational uses. Probably the most compelling need for reliable and comparable data on current human uses of an area, both the recreational and the nonrecreational, will be to provide guidelines for future management of competing uses of an area. That's really all I had written down. I'd just say that I think that the problems of the new parks in the State, because of provisions that are proposed for making distinctions among users, particularly giving preference to subsistence if conflicts occur, means that the data that we gather now must reflect different nonrecreational uses, particularly subsistence uses, to be useful for a large range of management problems that are due to occur. I believe this is probably going to be true in other areas where, if the provisions aren't there now, there will be some effort to distinguish among users on the refuges and on State land. I have brought along some samples of the types of reporting forms I obtained from the several Federal and State agencies. I'm speaking about the kinds of data that seems to be available when we go to an agency and ask them for their recreational data. I understand the Forest Service has a very comprehensive system of keeping track of uses in their cabins and that they stopped tabulating it in their reporting. The actual demands on agencies for uniform reporting based on some national standard puts some restraints on the agencies in the way they present their data. Perhaps the only way of getting around this is to superimpose on top of that, not telling agencies they shouldn't collect it in the way they're told in Washington--in terms of the Federal agencies in any case--but to somehow add another factor in there--a couple of factors--so that at least some portion of their data is comparable across the areas. Without it, it

seems to me there is no way there's going to be rational recreation planning for the whole State.

Dr. Wayne Thomas  
Resource Economist  
Institute of Agricultural Science  
University of Alaska  
Fairbanks, Alaska

### Jurisdictional Analysis of Alaskan Outdoor Recreation Management

I am here today to talk about outdoor recreation responsibilities in Alaska. I have two objectives in mind. The first one is to review outdoor recreation responsibilities by level of Government and private sectors and secondly to relate demand data requirements to these responsibilities. To begin it, I would like to make a few definitions. In the process I may bore a few of you, but I believe this is necessary. I've divided the governmental agencies into three sectors: Federal, State and local. Just as a footnote to that, I feel that the local sector is quite important to Alaska, and has in the past been ignored by the other two sectors. I will bring this out as we go into this paper. First, we should consider agencies with primary outdoor recreation responsibilities (the word primary is important). In the Federal system this means the National Park Service. While the National Park Service recognizes the recreational needs of the public, its position on providing recreational opportunities is always conditioned by equal responsibility for conservation of the values which contribute to the park's national significance. This policy has meant that the Park Service must continually evaluate the demands for new or expanded forms of recreation against the carrying capacity of the site. This constraint should be considered not only by the Park Service, but by all other agencies. From a State standpoint, the Alaska Division of Parks is the State agency that manages outdoor recreation lands as a primary responsibility. From a local standpoint, there is none. The boroughs and cities that have parks and recreation powers also have other governmental responsibilities. Outdoor recreation is balanced against other uses for local fiscal funds.

Continuing, agencies with secondary outdoor recreation responsibilities include those with multiple use responsibilities because they must balance recreation with other responsibilities. These include the Bureau of Land Management, the Forest Service and the Fish and Wildlife Service. The Bureau of Land Management is limited in its management

because of a lack of an organic act, while the Forest Service has no such restriction. As I understand the situation, a Bureau of Land Management organic act is in Congress at this moment, but it has an uncertain future.

The Fish and Wildlife Service have outdoor recreation responsibilities on their lands conditioned by their primary responsibility which is management of fish, wildlife and wildlands.

The State has agencies with secondary interests in outdoor recreation. They include the Division of Lands and the Department of Fish and Game. Fish and Game is an interesting one. They have primary responsibilities for harvesting of both commercial fish and sport fish and game. They have a major interest in outdoor recreation because fishing and hunting is within the subject spectrum, but we still put them in the secondary category because their primary responsibility is wildlife management. Highways, public works, State operated schools and the University of Alaska all have lesser involvement. These too are classed in the secondary category. Finally, we have the private sector. It includes private campground operations, lodges, etc. Each private operation attempts to manage his/her land for outdoor recreation purposes.

One final definition; when we talk about recreation demand, we mean user's requirements. We're not talking about demand in the economic sense of a price/quantity relationship.

Now, I am going to discuss my first objective. There are 54 State, Federal and local agencies that have land management responsibilities in the State of Alaska. These manage lands for various reasons. Some of them have major outdoor recreation interests, others have only limited concerns. A good example of the latter is the Department of the Defense who manages a great quantity of land in Alaska. Recreation is only important as it fits into the needs of military people. Defense does have specialized recreation facilities on its ground, which in most instances are not open to nonmilitary people. Civilian use of military wilderness areas does occur but this use must be restricted for security reasons.

We have other agencies like the Alaska Division of Parks that have a large park system that is insufficiently managed because of limitations on funding. They have large quantities of land with just boundaries determined. A good example is near Fairbanks along the Chena Hot Springs Road. State Parks has the Chena River recreation area with two signs, one at the end and one at the beginning, and that is their facility development. They do manage in the sense that

they pick up the trash. In general, the agency has some real problems, which are not entirely fiscal, in trying to decide how to manage and develop their park system. The crux of the situation is that before we can worry about trying to collect demand data, we must try to decide what roles the various levels of Government should play in the land management scheme and then determine the information that might be helpful in management of lands. So let's again, by level, view the roles of these agencies either as each currently views itself or will view itself shortly. Let's begin with the Federal role. Federal agencies manage public lands that are of national significance. This means the forest area of southeast Alaska is an important national resource to the whole United States and, therefore, is managed by the Forest Service.

The National Park Service will continue to manage lands that have either historical importance, such as Sitka, or areas like McKinley or Katmai, which have geological or biological importance. The Fish and Wildlife Service manages national refuges whose habitat is managed, as an example, for migrating birds. The Alaska Department of Fish and Game recently battled the Fish and Wildlife Service over management of musk ox. The issue is, what is the Federal responsibility regarding these animals, and what is the State's. This example, not necessarily concerning recreation, shows lack of identity of roles.

Returning to recreation, the role of the State is unclear at this stage of Alaska's existence because its primary agency is poorly funded and, as a consequence, is doing less than an adequate job. The Division's role would seem to be one of aiding its other State agencies and local government in planning present and future outdoor recreation developments. It also should expand its management of the State Park System. However, the agency has yet to answer the question "who does it serve - Alaskans and nonresidents or just Alaskans?" From this rises the question, how to serve the population after they are defined. The Division of Parks' need for demand data would seem to hinge on determining the answer to at least the first of these questions.

Another issue is to determine the role of local government in the outdoor recreation spectrum. In this case, their responsibility should first be to local residents. However, a variety of approaches would be quite correct. Cities and boroughs can participate in urban parks, rural parks, green belts, intensive play areas, local winter sports areas, etc. Local government should only secondarily spend funds to provide for nonresidents.

The private sector also has a role to play in outdoor recreation in Alaska. Concessionaire arrangements with public agencies like Alyeska Ski Resort have been successful. The development of private accommodations near Mt. McKinley National Park help reduce people pressure and provide alternative types of services. The State and Federal agencies should help private agencies plan their development. This provides a means to manipulate toward the type of development desired by the public agencies.

All the players in this diverse group of Federal, State, local and private units have roles in outdoor recreation development in Alaska. Once the role has been defined, demand data are necessary to help plan the direction of development.

The second objective of this talk can be handled in a succinct manner. We need answers to the following issues:

- a. What are the recreational needs of the people?
- b. What types of "experience" areas and facilities will best serve the recreational needs of the public?
- c. What factors determine the optimum location for areas and facilities?
- d. What are the priorities for improving recreational opportunities in Alaska?

Demand data collected and analyzed on a statewide basis can help provide the answers to these questions.

Thank you for listening.

Speaker from back of room: . . . . two different other areas that might get involved in recreation. One would be the Native corporations. I think when the final settlement comes down, we're talking not 40 but 44 million acres in that area. I definitely think because these corporations are in a cash economy now, they have to make a profit and that they'll be looking to this area.

Dr. Thomas: The State could aid the Native corporations in some of their planning. In my opinion, this would allow

their resources to be allocated in a manner which will best benefit them as well as the State by reducing the impact of a poorly defined and developed outdoor recreational area. I think the State Park's budget - the planning function of parks in particular - is poorly funded at the moment. This planning effort will need to be increased or we will have a mess with private sector development in rural areas, in my opinion, in a very few years.

Speaker from back of room: Some of these land selections are, of course, taking some of the finest hunting and fishing lands that we have in the State, and, depending upon how local traditions go in the corporations, some of the people that we've talked to in the corporations have talked about developing a tourist-type industry. At the present time, Annette Island is trying to develop a tourist-type industry down there based on some of the freshwater recreational fishing. The second item I'd like to mention is that if you're talking about the roles of various agencies in recreation as they manage or control land, the University of Alaska is a big landholder. As I remember the outdoor recreational survey that was conducted in 1966, which had to be done prior to obtaining BOR funds, recreational fishing was No. 3. As I remember the study, No. 1 was berry picking. I'm not sure who's managing berry picking.

Dr. Thomas: The University of Alaska, for your information, has the only organized trail system in the Fairbanks area. The borough has not done much except identify some trails - they don't really own any as far as I can determine. The university has a trail system of about 12 miles on their property, but they have designated only 1 mile as trail. The reason being they may want to build buildings someday and they don't want to have the trail system in the way.

Lou Waller: I'd like to reiterate one point that Wayne mentioned. I know it's going to come up again later in Dr. McCurdy's talk. He mentioned, having data does not insure that you will automatically improve your facilities or improve the recreational opportunities to the public. You have to make use of that data and wise use of the information in order to feed back in your planning in setting your objectives and your goals. I think that's a real good point and it will come up again, I'm sure.

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In the notes I have from what Wayne said, I've sorted out what I think really is a good direction for this symposium. For those of you who haven't waded through this element of the Statewide Outdoor Recreation Plan, of the five major recommendations, recommendation No. 5 concerns what I understand to be the purpose of this symposium. It's on pages 28 and 29. It's short so you should be able to read it pretty quickly when you get a chance. Basically, it is: derive a definition of outdoor recreation demand which satisfies recreation related agencies and adopt a uniform method of collecting demand data relevant to planning purposes. In that discussion there are three major reasons for doing that, which you can look at as you have time.

If I interpreted what Wayne just said correctly, I came out with three things that strike me as important items for this group to look at. The first is, we need to define the units of demand. In other words, what is it that we want to quantify? The second is how do we collect demand data. I jotted down three alternatives which either could be alternatively used or in combination. One is summing up the total of all agencies' visitation counts, and if all the agencies would use the common system of collecting demand, unlike the variety of demand data which Amy encountered in her attempt to compile it, there would be the possibility then of determining demand based on visitation to areas. Another approach is the random demand survey, perhaps necessary instead of or in addition to visitation counts in that the random survey finds out what people do in the way of outdoor recreation that may not be at a designated Federal, State, or local Government, or private recreation areas. Out-of-park recreation participation is an important element of the outdoor recreation picture. This could be monitored the way we did it in the Statewide Outdoor Recreation Plan in the past. And that is ask people essentially how many times did you go fishing during the past year, and that was broken down by saltwater, fresh water and ice fishing; how many times did you go boating, and that was broken down by sailboating, ocean boating, inland water boating, skiing, snowmobiling, picnicking, camping, etc. But then there is the point made by the current director of the Division of Planning and Policy Development for the State of Alaska, Bob Weeden: We shouldn't get overly concerned and oriented to specific

activities--fishing, skiing, camping, picnicking, that it's the experience that's the important thing. The activity used to obtain the experience is the secondary consideration and that what we should really be striving for is what experience the people are seeking. I think that's a very important thing to zero in on, but what I haven't been able to answer in my mind, and maybe a group like this could come up with some ideas, is, okay, nice idea, but how do we quantify it? Maybe we'll get some help from the Bureau of Outdoor Recreation later on who can relate something I saw Washington State attempting a few years ago. Although it looked like it had some problems to me, they were trying to quantify outdoor recreation by resource types and maybe similar activity types. Maybe that's one way of getting at the essence of the experience.

The third thing that Wayne mentioned is where additional facilities are needed. This sounds to me like a complex thing to do and maybe its beyond the capacity of any of us at the present time. But if it could be done statistically, it would be wonderful to be able to start determining where new parks and new recreational facilities should be developed.

A fourth item is the need to consider what some people refer to as latent demand--what are people not doing that they'd like to be doing. That can be partly found out by asking them that question in a survey, what would you like to do but couldn't do, and what was the reason that you couldn't do it. But how about the things which the general public and maybe many of us or all of us haven't even conceived of yet as a possible enjoyable outdoor recreation activity.

If we can find ways to incorporate all these things into the formula, I think we'd have a really comprehensive tool for guiding the outdoor recreation agencies in their future actions. Possibly this isn't the direction of the symposium as others see it, but I just wanted to point out how we, working on the Statewide Outdoor Recreation Plan, see the value of this gathering.

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### The Benefits of a Public Use Measurement System

One thing is obvious to me in the short time I've been here--that the public land managing agencies in Alaska have a great opportunity to bring order to the development of their lands for outdoor recreational pursuits. Order is defined as a condition in which everthing is so arranged as to play its proper role--each agency meeting its proper responsibility. The public expects the Federal and State agencies to coordinate and meet their unique and special responsibilities in the field of outdoor recreation. Without this, we will have duplication and provision of unneeded areas, facilties, and services. To accomplish orderly development, it is imperative that it be based on a management information system, of which public use measurement is a part. I would like to restrict my remarks to outdoor recreational use of public lands, State and Federal. Also, to recognize that outdoor recreation is only part of a broader leisure picture for both residents and nonresidents of Alaska. Outdoor recreation occurs on three types of public lands: natural areas, historic areas, and recreation areas. Regardless of the type of area, a natural historical or recreational, or regardless of the level of management (State or Federal), or by what agency, I feel the basic purpose of public use of wildlands is to serve people. They serve people, recognizing the three types of areas, in four ways. First, by preserving natural values. This could be forest values, wildlife values, geological values, archeological values, and so forth. Second, preserving historic and scientific values. Third, through interpreting and portraying these values to the public. And the fourth, by providing outdoor recreational opportunities on wildlands in natural environments. Realizing we have three types of areas, priorities vary by type of area. Therefore, it is very important, as has been mentioned here earlier, that to provide order in the development of facilities, each agency meets its unique responsibility.

When viewing outdoor recreational use of public lands, at one end of the spectrum are highly developed areas such as campgrounds, and at the other are wilderness areas. Areas of national significance are currently managed, and should be managed, by the National Park Service. Natural, historic, and scientific values of State significance should fall within the State parks system. Other values, which aren't of national significance or State significance but are of unique value and are compatible with other land managing agencies' responsibilities and missions, should be provided, or at least the public should be allowed to enjoy these values. This is where I see the Forest Service, the Bureau of Land Management, and the National Wildlife Refuge system fitting in. In other words, where they do have values on their land that are compatible with their resource and area compatible with their mission, and if there is a need (and I underscore need), and if they have financial and human resources, then they might best meet their responsibilities by making these available to the public.

Regardless of who has responsibility for allocating their land or providing outdoor recreational opportunities, a management information system is needed. In fact, a management information system would help to define and identify this responsibility.

If we're going to plan for order in Alaska in serving the people or in serving the public, we've got to be able to plan with a solid foundation and this entails having good public use data. It's been mentioned, in planning we need demand data. Well, in essence, we need "need" data; in other words, the deficit of demand minus supply for given market areas. Market areas vary by activity and for each type of area. In planning we need public use data to determine "needs" for the various types of areas, activities, and facilities that should be provided. And then, assuming that we have planned these areas, we next develop the areas and prepare budgets for operation. For these tasks, we need public use data to determine use patterns. If we're going to provide areas and facilities, of functional design, we've got to know who the user is, what his use patterns are, how many people are in his group, what he does, and how long he stays. And then after development, or even before, we have to make administrative decisions; in other words, when should we open these areas; what are the maintenance requirements; what type of visitor protection services should we provide, when and where; what type of information and interpretive program should we have; how much personnel do we need, and so forth. Furthermore, we need the data for budget allocations of money and personnel. I've touched

briefly the various uses we might have for public use data. Next I'd like Lou to pass out a detailed list of the various uses we can make of public use data. First, we have a page of the various types of parameters we will assume we have already collected. We also will assume that you agree that we need a public use measurement system. In having one, we'll further assume that we've collected certain data and look to see how we might use it. Most people visit public lands as a group, even in the wilderness. Therefore, assume that our public use measurement system would give us the number of people in each group. Also, assume that we have data on the distance each group travelled to the area, how long he stayed there, and in what activities each individual took part.

Knowing this data, we can obtain the following data from these parameters. I brought this as an example. Wouldn't it be nice if everybody could do what the Park Service does, or if we could do this for the State of Alaska, such as the Park Service has done for their system. We're just looking at some of the uses for planning here and I'm sure we're going to talk more about each one of these uses and maybe chop a few off and hit them further in the session. It's interesting to see the various peoples' bias, though. Nat's interested in the State outdoor recreation plan, so he thinks we should be talking about demand. Somebody else is interested in another aspect of outdoor recreation and they think we should be talking about this. The main thing we ought to zero in on is a public use measurement system in obtaining comparable data between agencies. We would then have comparable data for the following: Congressional committees, allied administrative agencies, Chambers of Commerce, communications media, private organizations, planning agencies, travel agencies, and economic and market analysts and people like myself, research scientists. Looking at planning, one thing we can use the data for is predicting and project use. Second, we can determine and predict trends and use patterns. For example, I wondered where everybody was who was trying to look at the tea leaves when the energy shortage hit us. Third, we can appraise opportunities, facilities, and services; in other words, what people are using now definitely is an indication of what they'll use in the future. It doesn't insure this, but it is an indication. Fourth, the data can be used to design areas, facilities, and services that are functional, efficient, and nondiscriminatory. In other words, if we don't know our use patterns, and admittedly many times we don't, how can we design an area that's functional. Fifth, with the data we can identify markets for areas, activities, and facilities. Now here's where I get all excited about public use measure-

ment. I don't think people use market data in outdoor recreation very much or very well. And we do, since we serve different publics, have different markets. In providing services, information, and so forth, we definitely need to know what our market areas are. Sixth, the data can be used to allocate land and water resources. Well, we don't use public use data to do this. Another use of public use data is to predict environmental impacts and deterioration. Somebody mentioned this to me earlier. I don't hear anybody talking about the effect of the impact on the environment, or the effect of the use on the environment. And definitely we're going to have to do some further work, just not measure public use. But public use, if we can correlate it with impact, we can predict impact in the future. I don't know if anybody is doing research on this now, but I think it would be a wide open field if somebody wanted to; just as monitoring change in environment is wide open. Another use of the data is for determining carrying capacities. In other words, in the future we'll have to determine the type of experience we want to provide, set carrying capacities and standards to ensure that experience. The next group of uses of visitor data are administrative uses. Now here I'm thinking about forest supervisors, regional or area refuge supervisors, and national park superintendents. I don't know how many people of this nature are here today, but if we can't sell them on the use of the data, we're not going to be able to collect it without their support, we won't do it in the proper manner, so our data won't be much good anyhow. One thing they can use public use data for is to adjust goals priorities, values, and criteria. Second, the data is useful in preparing and justifying budgets, both development and operation budgets. If you have standards on how many sanitary facilities you need per thousand visitors, or standards on law enforcement or information, you can use those in conjunction to justify and prepare budgets. You can assemble programs - maintenance programs, law enforcement programs, information and interpretive programs. If you're a good law enforcement man in the park, you'll be there before the problems exist. But the only way you're going to be there before it exists is to know the use patterns and know when most of the use at that particular site is going to occur and for what activities. Third, the day can help allocate funds, personnel, and resources. I separated this from preparing budgets because I've been involved in this enough to know that we prepare budgets and then after we get our money we reallocate our funds, so you can use it for both. In addition, the data can aid in appraising future expansions or additions to areas, facilities, and services. It can be used to evaluate past developments.

I don't know how much of this is done, but I think more should be done. There are numerous situations in the lower 48 States where Federal and State agencies have put in, in areas that weren't functional, weren't needed, and therefore weren't used. The data can be used to calculate depreciation rates for facilities. I don't know how many programming people we have here, but they have to do this in budget preparation. Facilities have to be amortized and to do this, it would be nice if we could tie this to good solid public use data. Finally, the data can be used to provide effective on-site public information programs.

The next beneficiary of public use data is the on-site manager. Here I'm thinking about the recreation specialist, the refuge manager, or the area manager. The manager can use the data to justify closure schedules, when he should have his park open. It is helpful to have public use data to determine how many fee collectors are needed, how many lifeguards needed, and when they are needing them. You can use the data in your maintenance program. Concessions - do you need a concessionaire. Would the concession be profitable, or should we do something to help the concessionaire out so we can keep him on the site. You can use it in ordering supplies or setting up your resource management program for fire detection and for vegetation maintenance. You can use it here again at this level to justify budgets. It can be used to measure aesthetic impacts, resource deterioration, facility depreciation, and supply depletion. We're not going to come up with any standards or factors until we start to do this, but I think we're going to have to start to do it. Another one is to control visitor use patterns, i.e., their access routes. If you know how people are using the area currently, then you can help determine or increase access routes, you can determine group size, schedule where the user is to stay overnight, etc. With the data the manager can predict and avoid user conflicts; an area will have a dominant user, fishermen versus waterskiers. The data can be used when establishing regulations. I have visited many areas where they have unneeded regulations. Regulations should be tied to use patterns and use data.

This exhausts my ideas of the benefits of an interagency public use system. But I would like to assume, as Lou keeps saying, that I've convinced you to have one. Now I want to give you some more warnings in developing one. I have five or six and then we can throw it open for discussion. But assuming we are going to have a public use system, either the refuges, or interagency, or BLM alone, I think you should consider these things. First of all, I think you shouldn't try to solve all the world's problems with your

public use measurement system. This has been one mistake that's been made in the past. You should collect only the data that is essential. Land managing agencies aren't a statistical gathering agency. You've got to keep this in the back of your mind. Just collect the data that are essential. Also collect the data in the proper form, for the intended use. In other words, if you don't know how you're going to use it, then don't collect it. In addition, don't collect the data if you don't think you can sell your boss on using it. In other words, I'd make sure my superior was sold on it before I started a program. Another thing that should be considered under this first warning - don't solve all the world's problems-is provide for continuity in the data collection system. If you do collect public use data, have your system in writing so whoever follows you can use the same procedures or at least make minor adjustments over a longer run so that trend data can be obtained. Furthermore, the public use measurement system that you adopt should obtain representative data. I'm going to talk tomorrow on how you get representative data. But if your data doesn't represent current use, you're wasting your time. Obtain data of accuracy commensurate with the intended use. I have seen examples where the agency collected data of greater accuracy than was needed. Accuracy should be commensurate with the intended use. Other systems have broken down because they are so sophisticated that the operators could not understand them. The system should be tailored to the field personnels' capacity to carry it out. I don't care how good the public use technique that you're using is, if your field personnel can't understand it and can't carry it out, you're wasting your time. I'm sure some of you can agree with that statement. Another thing along this same line, I think the administrators, the planners, the on-site managers, the field men, all must understand and appreciate the system before you begin it. In other words, the field men might collect the data for you, but if they don't buy it, you're definitely not going to get representative data, and the accuracy you want. They will be in the coffee shop when they should be counting or interviewing visitors. If everybody from the top down to the bottom doesn't understand it and appreciate it, I would look for another system. Third, I think your system should be applicable to the intended use; garbage in is garbage out. Fourth, don't jump into a public use system head-first; wade in. In other words, begin with the highest priority needs and then expand. And fifth, I think we should insure comparability of the data, especially the interagency concept of public use measurement. This is a real important point and we've been

talking about it. Dick talked about it; Nat talked about it. Outdoor recreation is not a nice, neat, easily defined homogenous product. I don't know if you followed that, but it's hard to define our outdoor recreation. It's just not homogenous. It's not even neat. In other words, people say that they are fishing when really they are just sitting in the boat watching the sun go down over a beautiful lake. You ask them if they're fishing - "Yeah, I'm fishing" but that's not what they're really doing. Too, we have to remember there's no majority or average recreationist. Outdoor recreation is made up of a series of minority publics. Therefore, I definitely believe, that agencies must agree on what outdoor recreational opportunities they're going to provide and measure, and have standard definitions. Because if the Park Service defines berry picking one way and the Forest Service doesn't even collect data on it, and BLM defines it another way, you can see what you've got. Lastly, I'd like to make one more point here. Don't get caught up in the numbers game. In other words, I started by saying, and I hope you accepted it, that parks are for people. But the minute you say this and agree to this, it's very easy to get caught in the numbers game. We've got to remember that there's no majority and no average visitor. Therefore, we can't apply the principal--the greatest good for the greatest number. Just because fishing is the most popular activity today doesn't mean it will have the highest priority tomorrow. Another factor we should keep in mind is that at one pole we might have the wilderness backpacker and at the other one we have this camper with an Airstream trailer with a TV. In other words, what one person desires another abhors. They are all competing and we've got to realize this in our public use measurement system. In addition, think in the long run we are going to have to answer questions Wayne spoke to, "Why do people come to our public lands?" Are their needs being met there? What kind of experience did they get or did they want? Did you as a land managing agency accomplish your objectives in having them there as your guests, and are the gains that they obtained equal to the cost of society's providing that opportunity?

In 1965, the Federal Government had a Recreation Advisory Council, which developed six criteria for an interagency public use measurement system. First, it should have uniformity. In other words, you should adopt statistical units that will measure recreation use in the same way under all circumstances. Second, comparability. The system must produce comparable numerical tools which will enable direct comparisons, by volumes, by type of area, by agency, by activity, and so forth. In other words, it should be additive

or comparable. Third, flexibility. The system must be amendable to the various requirements for agency planning, facility planning, priority determination, and so forth. Fourth, neutrality. I mentioned this earlier. It should contain no inherent bias, favoring a particular activity or agency. Fifth, feasibility. It must be technically feasible. In other words, the system must set out to measure what is in fact measurable. And here again I've talked about the problems of not having a homogenous product in outdoor recreation. The data should be measurable in an objective and verifiable fashion. What they mean here is that if I measure it, someone else can follow along and measure it and get the same results. Finally, practicability. The scheme must be operational, practicable; that is, the execution of the program must be within the attainable professional and financial resources of the participating agencies.

The phases of public use measurement as I view them are collection, compiling the data, processing the data, analyzing the data, and disseminating the data. There's a breakdown many times in this process because I tried to do it with refuges and it's difficult to accomplish all phases of a public use measurement system. We might be able to collect it, we might not have resources or the personnel to actually analyze it correctly or disseminate it. In closing, I would like to read a Federal Advisory Council directive on Federal recreation areas: "The best use of the nation's lands and waters for outdoor recreation depends upon a full knowledge of the kind and amount of recreation activities taking place on them. Therefore, the recreation advisory council feels that it should lead, guide, and stimulate the orderly accumulation of reliable information on recreational use. To accomplish this objective, the council recommends that the member agencies assemble and report their data on recreational use in a single uniform system with these characteristics: (a) It must adopt units which measure and report recreational use in the same way under all circumstances; (b) It must produce numerical tools which for any class or type of use area or other breakdown will be directly comparable. (c) It must have the flexibility to accommodate an increasing variety of situations under \_\_\_\_\_. (d) It must contain no inherent bias, and (e) it must be technically feasible, operationally practical, and subject to verification." And you had those orders ten years ago.

(From back of room) All Federal agencies are supposed to use a 12-hour visitor day.

Dr. McCurdy: They can use all of them. In other words, you could get visits, and if you have a visitor day and you collect it correctly you can get visitor hours, too.

Dr. McCurdy: I brought with me almost every article that's ever been written, or every research paper that's ever been written on public use measurement. I'm going to leave it with Lou for a month or so, so if any of you would like to look at them or use any of it you can.

(From back of room) I'm curious. There must be a number of interagency measurement systems functioning in various parts of the United States today. Have any of them functioned for quite an extended period of time ....(inaudible).

Dr. McCurdy: One of our speakers is going to talk about an interagency set up or system in Washington, Oregon, and Idaho the next speaker. (Several minutes lost.)

Question: If you have a fragile, fragile terrain, the introduction of people is going to be perhaps the death knell for the basic resource that they come up to worship, really. How does this all relate - the management of the resource to the gathering of the data and tertiary, then, the opening up of new areas?

Dr. McCurdy: In essence you're saying by providing road you're creating demand. In southern Illinois, we didn't have a demand for waterskiing until we built three or four large lakes and it was there. I really don't know how to answer your question, Ron. I think it's important that we talk about this and maybe later when we get a little more informal we can get to that. Because I really don't even know how to start on it. Access is the limiting factor on capacity in Alaska right now.

Speaker from back of room: I do not advocate fishing and hunting in national parks. They are not there for their fishing and building resources. There is no national park to my knowledge that has ever been established for that reason. Katmai was established to preserve the - the primary reason there was to preserve the volcanic area associated with the eruption of 1912. McKinley was set up as a game sanctuary for Dall sheep.

Dr. McCurdy: The reason I felt so strongly about it and I commented to you (Dick Montague can correct me if I'm wrong), but I believe in the national wildlife refuge system, they have a small budget. And when they were providing non-wildlife oriented recreational opportunities it took a large part of their budget. And they couldn't accomplish their major purpose of preserving wildlife and then interpreting and portraying it for the public.

Another speaker: Interestingly enough, one of the major forces behind the formation of Mt. McKinley National Park was, of all organizations, the Boone and Crockett Club. They carried the battle for seven years to get the act through Congress.

Another speaker: You talk about non-resource management activities. What are you talking about?

Dr. McCurdy: Non-wildlife oriented activities such as waterskiing. In the refuge next door to me they have beaches and the beaches are used by the city people. It's not really the responsibility of the refuge system to provide a beach for Carbondale, Illinois, a swimming area. If the need for an activity is compatible or at least is not in direct conflict with our resource or our mission and we can find somebody else to meet it, I think we're going to have to go that route. Like campgrounds, I definitely feel that the Park Service shouldn't be in the campground business. They should be in the business if there isn't enough demand or enough need to warrant the private to go in and do it. But if there is a need and private can do it . . . I've seen this at Mammoth Cave in Kentucky. The Park Service decided they weren't going to expand their campground. Within three or four years they had, oh, three or four KOA campgrounds meeting that need.

Question: Inside the park or outside of the park?

Dr. McCurdy: At the edge of the park.

Question: Because it is not National Park Service policy to build hotels and facilities in existing national parks.

Another question: How do you feel about all these Federal agencies which overlap in this area? You have refuges, Fish and Wildlife Service, Forest Service, Department of Agriculture, BLM, National Park Service, all building visitor centers, all building nature interpretation centers, and they're all operating campgrounds. In other words, what I'm saying is they're all in there competing for that portion of the recreational dollar that's available.

Dr. McCurdy: I don't think they're competing. I think many times they provide this service to protect the resource.

Question: You say they're not competing. In fact, on the congressional level I think they are. We go to the Forest Service and we say, "Why isn't recreation, why isn't wildlife getting as much attention as timber harvesting?" They say,

"We don't have the funds." And yet there's a beautiful visitor center that's getting a lot of funds. In other words there's a contrast.

Dr. McCurdy: I know it. It's a paradox.

Question: What's the solution?

Dr. McCurdy: Well, we go back to responsibility. I've worked for the Forest Service and I've worked for the refuge system and I believe in them both. It hurts me to see the Forest Service not be able to accomplish their timber management job because they happen to provide, at least in my region of the country, some recreation areas that take a lot of their time and money and aren't needed. The areas are there now and it's hard to shut them down. I don't think you can blame it on the agency. You can put a lot of blame on the secretarial level and on congressional committees as well as the agencies.

Question: Don't you think the use of public lands has changed dramatically in the last 15 years?

Dr McCurdy: No doubt about it.

Question: And don't you think that the management agencies have not been aware of this until just recently?

Dr. McCurdy: Thats right they haven't been.

Question: Therefore, if the public owns these public lands and take the Forest Service lands where once you heard and chainsaws and now you hear picnickers and hikers, shouldn't they adjust and be flexible to that demand on public lands?

Dr. McCurdy: You mean try to meet that demand, try to keep up with it? But let's just take one given lake, say, near Anchorage. If the Forest Service was to meet the total demand camping at the lake, they'd have campgrounds all the way around that lake and there are many other users that might want to get on the edge of that lake or use that lake for other purposes. I don't know if they had the money to if they should. You have so many other values there. And the Forest Service, I feel, is trying desparately to meet the needs for these values equally. They were behind in some of them and therefore you see some on emphasis there that you didn't see in the past. But I believe the Forest Service is trying to meet all the users or the needs of the forest.

Question: Certainly more so today than perhaps they were five years ago. Today they would never have made the sale that they made to U.S. Plywood Champion in southeast Alaska. Probably not.

Dr. McCurdy: I am teaching a course in resource decision making and we look at the objective of the Forest Service. And whether they had objectives or not, you can see implied objectives on the allocations in their budget. And you can see a change in the amount of money allocated to the various functions or programs, whatever they call them, since the Multiple Use Act.

Question: Well, they conceive their function in southeast to be the sale of timber. And the Sierra Club went into court and challenged that and so far has been successful in stopping the sale for five years.

Dr. McCurdy: Where I live we have some proposed wilderness areas and they can't cut timber. And the land wouldn't be there if the Forest Service hadn't been there managing maybe in the first place if they're doing a good enough job right now. Why not leave them alone? They seem to be doing a pretty good job. Many times when you call an area wilderness and it gets more use than it would have otherwise and you lose the values there totally.

Question: I think it's a question of changing perceptions. How people perceive the problem. Probably the Forest Service felt in good conscience that their action at the time of the lease was perfectly justified. Then with the whole increasing environmental awareness brought about by the trans-Alaska pipeline and the tremendously intense heat generated by that controversy and many people then started to feel that, no, what the Forest Service had done in leasing that land in southeast Alaska was incorrect.

Dr. McCurdy: Right.

Question: We've changed the ground rules in six years' time.

Dr. McCurdy: Right. But here again personally I've changed my philosophy on whether an area should be a wilderness, say, within the refuge system. At first I thought too many areas were going into wilderness within the National Wildlife Refuge System. Because they have a different purpose than wilderness you trade off any future opportunity to build dams or manage the area for that wildlife which you are to give priority. They wanted to put these areas in so they

could insure ownership. I just see here recently, and I don't know the reasons, but the refuge system sure lost some of the big game ranges in the lower 48 and I understand they might lose the one here in Alaska. But if it was in wilderness right now, there would be a lower probability that this would occur. So I've changed my opinion as a result of that. What's right? It's hard to say.

(From back of room): It's political.

Dr McCurdy: That's right, and I think that's where it should be answered--at the political level.

From back of room: Any act, though, that ties your response to a use for 50 years like the Champion sale, that doesn't leave much flexibility there for changing public needs certainly.

Dr. McCurdy: Right, and in the past we haven't recognized the tradeoffs made in our resource decisions

From back of room: is a very inexact science. We have in Alaska a classic problem with the cross-country skier and the snowmachiner. Ten years ago snowmachines were not a significant factor in recreation use. Today they are all over the place. But cross-country skiing is also increasing and you have a head-on confrontation between those who cross-country ski and those who snowmachine, both of whom are uniquely selfish in their demands for vast areas in which to use their particular form of recreation. The classic cross-country skier will insist that no one can be in sight of his cross-country ski trek because that would detract from his experience. And the snowmachiner doesn't want the cross-country anywhere within miles. But they are both profligate in their demands on land use.

Dr. McCurdy: Yes, but the snowmachine is dominant.

From the back of room: It's dominant because the guy who owns the snowmachine has spent at least \$1,500 for the machine and his equipment. The guy who bought the cross-country skis has spent about \$150.

Dr. McCurdy: Well, that might be part of it, but I think, too, the snowmachine makes a lot of noise. But land use zoning like the Forest Service did here can help avoid these conflicts. But here again, how much snowmachining or how much cross-country skiing should you provide? On public lands the needs should be met proportionately the same.

There might be 10 million cross-country skiers and only 1,000 snowmobilers. You're going to have the money to meet a limited amount, then you should meet, say 10 per cent of both needs rather than 50 or 100 per cent of one and only one per cent of the other.

From back of room: How about agencies' responsibility for energy conservation? You should take that into account.

Dr. McCurdy: Yes, you should. It gets complicated, doesn't it?

From back of room: One last question. I understand, if my memory serves me right, President Kennedy established the Bureau of Outdoor Recreation to act as a coordinator among the various land use and recreation oriented agencies. It has completely and utterly failed.

Dr. McCurdy: I'll agree with that. It's the only federal agency land management or outdoor recreation I'll criticize. But I don't understand what the BOR has been doing with all their money and people. I know they're doing things, but the major thing I think should be this coordination you're talking about.

From back of room: I would buy that, but probably the question I'm getting at here is what can we do now to get this train on the right track. Because I see all these giant monolithic agencies in there fighting for this one dollar.

Dr. McCurdy: I think in Alaska you have an opportunity to attempt to do it and I would. In my talk I mentioned BOR should take the leadership role, but they probably won't. Therefore, the State maybe should take the lead and I'm sure the federal agencies will cooperate with it. They're almost going to have to.

Amy Paige: One of the biggest problems it seemed to me when I was going through this exercise that I was reporting on this morning was the impossibility of getting data on the vast public domain. We've been talking about the kind of data that agencies managing specific areas could get, but there's a huge heck of lot of land out there that isn't getting the kind of intensive management. I mean there's no way that BLM is going to manage that the way say, the Fish and Wildlife Service manages the refuges. But it seems to me we need to know what's happening there so we know how to balance out what's happening on areas that are more densely managed. The Park Service would need to know what the

effects from cutting out fishing in a certain area is going to have on this vast public domain and how much is happening out there already. How do you account for all this? One time I think I saw in the State outdoor recreation plan the figure that somebody came up with in BLM for visits on public domain by region. And I couldn't find anybody who knew anything about it. It was somebody's figment of their imagination. And it represented nothing at all. I was really looking for information on our proposal areas and there's just nothing.

Dr. McCurdy: You will have to admit, though, that Park Service has just started to get good data, too, in the last three or four years.

Some discussion about probability samples, inaudible.

Question: I'd like to ask you a philosophical question. What responsibility does the State have to supply anything?

Dr. McCurdy: You need a State park system.

Question: Why?

Dr. McCurdy: Well, that's why I brought some criteria. I have a thing to hand out.

Question: No, why do you think we need a State park system?

Dr. McCurdy: Well, I'll answer that, but let me give you my criteria that we have here first. Something of State significance, say recreation area, would attract people from all over the State, or if it's natural area, it should be the best representation of a physiographic region of that State. And if it's a best representation of a physiographic aspect nationally, it might be a national park, but if it's the best representation of, say the Brooks Range, I think you should have a State park there.

Question: Why?

Dr. McCurdy: Well, you get into a welfare question here.

Questioner: I think that's very \_\_\_\_\_ question.

Dr. McCurdy: Yes, and I'll buy that and I say this to my classes. Everything we do must benefit the public or we shouldn't be doing it.

Question: How does it benefit the public?

Dr. McCurdy: You've got me, I'm not an interpreter. I wish Tom Ritter was here; maybe he could answer this. I would like, if I lived in this State, to know that there's some area that I could go back and visit.

Questioner: We aren't doing very much with our State park system, either.

Dr. McCurdy: But here again, I think it's of value to preserve areas of significance to Alaska's heritage.

Question: What is that worth in economic terms?

Lou Waller: In Colorado, they said years ago there was no reason for a State park system. They had national forests and national parks; everything is right here; there was no need for it. Now the population of the State of Colorado has skyrocketed. The national parks are so crowded that the people in the State can't get into them.

Question: Why not add more national parks? For your argument, why not add more national parks in Colorado? If the present national parks are crowded, why not create more national parks in Colorado? Why create State parks?

Lou Waller: What is of national significance? And that is the key to the national park system.

Dr. McCurdy: I can answer your question a lot easier if you want to talk recreation areas instead of natural values. The Federal Government should step in and provide national recreation areas on these areas which are of such a size and such a cost in development and operation that the State can't afford it.

Question: It would be nice to see an economic model which would show how much this all costs. What are we paying in taxes to provide this kind of facility? Based on the number of people who actually use the facilities, I think you may find that a hell of a lot of people are paying a lot of money for a rather small group of people.

Lou Waller: That was an interesting discussion that got a little bit off the point, but not really, because we can still fall back on visitor use data. What I mentioned this morning and several other people have mentioned also is professionalism and efficiency in recreation management. Our data should reflect what the needs are of the public. And

if it is a joint data base we should not be duplicating efforts--Federal Government, State, and whoever else is involved, the local government subdivisions. I think this is a thing that could be a spinoff benefit from any kind of a coordinated collection system.

Keith Shone  
Chief, Water Resources Planning Section  
Northwest Region - Bureau of Outdoor Recreation  
Chain - Northwest Recreation Data Subcommittee

Case Study Where the Bureau of Outdoor  
Recreation and State/Federal Agencies  
Have Pooled Resources for Utilization of  
Visitor Use Data

What I intended to today was to give a short introduction and then show some slides. Basically I'm going to give you a case study covering an effort we have going in the northwest, involving Idaho, Oregon, Washington, and part of Montana. It involves a data collection system which I believe at least to be not too different from what you're talking about here. I think the benefit that we may have is that we've been at it for a little over a year now and we've taken our lumps and our bumps already. I suppose at the end of the presentation only you will be able to best tell whether it does or does not have application to what you're hoping to do here.

The impetus for our effort down there, and I look at it that way, we needed some kind of impetus, was that we got involved in a level B study of the northwest region covering the area that I just indicated and were asked to provide the recreation data for the study. In this study, we were requested to provide fairly detailed recreation data on anywhere from a county, to a state, to the entire region. Prior to that the type of information that we had used as developed had come from either the State Comprehensive Outdoor Recreation Plan (SCORP) or was generated as part of comprehensive studies covering fairly large river basin areas. We never had really done a regionwide county-by-county analysis of recreation demand-supply needs.

In initiating my work on this particular study, I felt that inasmuch as the Bureau of Outdoor Recreation works with the states in the development of their state outdoor recreation comprehensive plans, that should be the basic document upon which we would develop recreation data for this larger study. However, in going through the three state plans, that might not be too different from going through the one state plan that you're dealing with here, I found that we had some problems in adapting the recreation data to our needs. One problem was that the plans had different terms

and definitions. In our case, they differed from state to state and they differed between agencies. Secondly, we had problems with the fact that data was collected and presented differently. Each agency seemed to have its own approach to how they would collect the data and then present it. The planning areas used were not additive from agency to agency. Again, in our case, we had plans of three states plus numerous Federal agencies which were not additive. I think these are both common to what we're talking about here today. A third problem we had was we didn't believe that the information that had been developed had gone far enough in analyzing the intra- and inter- state recreation travel patterns.

As a result of identifying these problems we proposed the establishment of a work group to see if we couldn't resolve some of these problems.

Basically, the work group was to be composed of those agencies which were either developing recreation plans; for example, the SCORP planner for each one of the involved states or Federal agencies that collected recreational information and had an interest in the use of the kind of information that we would generate from our study. So a work group was organized and made some pretty quick accomplishments. The reason for this is that the first big step is just getting the right people together sitting around the table. You can get standardized recreation terms without too much effort. Before we started in this effort we had recreation visits, recreation days, visitor days, visitor hours, people days, everything you can imagine and we finally decided on the unit which was acceptable to the entire group. We also found that if we got to the person or persons originally involved in developing the information, we could also get his interpretation of the basic data. This would result in standardization of the data base so that where one the figures were not additive, by having these people sit down together we could come up with conversion factors, etc. Thus, we could convert visitor hours and visitor days and recreation days and all these different forms of data to one standard unit that would be additive for the area that we were involved with. We were also able to come to what we thought should be the standard planning area for use in our study. In our case, we took the county and we were very happy that we did that. We first discussed using a planning area concept which would have been the easiest way out, but in the end it would have made the data much less usable for our purposes. We could have ended up with 30 planning areas. Instead we ended up with 131 counties plus 14 external zones. At first, it was difficult, when we had to break down some of the basic data. Once we got past these first-

hand calculations it wasn't that difficult for the computer, however. The computer doesn't really have that much more difficulty in handling 144 areas than it does handling 30 areas. So when we did get the basic data broken down and got it computerized, it was no great difficulty for making that magnitude of change.

As I indicated, this work group was brought together as a result of regional study need. After having worked some eight, nine, or ten months on this project and making fairly good progress it became apparent that if we could do this for one study, why shouldn't the interagency approach be the basis for all comprehensive recreation planning for the region. As a result we instituted a change in the makeup of the group. We felt that it would be important if it were a more officially sanctioned group than just a group working on one particular study. So a motion was drafted and presented to the Recreation Committee of the Pacific Northwest River Basin Commission, because of its interagency makeup, which happened to be a fairly optimum organization from which we could work. It seemed to be a fairly good parent organization. The motion provided for the establishment of a Recreation Data Subcommittee, having the following functions: to compile data and information about existing and projected recreation participation in the region, to provide guidance on data collection and analysis as required for comprehensive planning in the region, to develop and maintain standard methods and terminology relative to data management within the region. Now we felt that those were big enough goals - they're broad enough that they could keep us busy for some time.

Since establishment, the group has been fairly active. We've been meeting on a monthly basis now for 14 to 15 months. We have been concentrating more on recreation demand or use to date at least. It's possible that we will start to address more attention to supply and translation of needs or lack of needs, as we get our demand problems solved. But we're taking one problem at a time and demand, participation, consumption, whatever you want to call it, is giving us plenty of challenges right now. So with that, I would like to go into a few slides which we've put together which may better explain to you the process that we're going through.

Slide #1, (not reproduced) This is a slide to depict one of our monthly meetings of the recreation data subcommittee. Presently the membership that we have is about 11 strong. We've tried to get all the right people involved. In our case that would be a representative from each of the State

recreation planning agencies (Oregon, Washington, Idaho) a representative of the National Park Service, Bureau of Land Management, Forest Service, Corps of Engineers, Bureau of Reclamation, and the Bureau of Outdoor Recreation. I don't think I've left anybody out. One thing I might mention is that even getting to where we are today we've had to make considerable compromise and that can be quite difficult as the size of the group grows. The meetings can bog down over very minor points. It might be a point on terminology, some kind of a standard unit of measurement, etc. As a result, we have tried to limit membership. In other words, not allow the membership to get so big that we wouldn't make any accomplishments.

Slide #2, This slide gives you an indication of the way we're structured. We have the Pacific Northwest River Basin Commission sort of as the parent organization. The Commission provides they represent for interagency coordination in river basin planning in the northwest. Under them is the Recreation Committee which has fairly broad responsibilities for recreation coordination in the region. And under them, the Recreation Data Subcommittee with a much more specific responsibility. As a result of subcommittee work, we have output data which goes into our Northwest Level B study (CCJP), the State Comprehensive Outdoor Recreation Plans and many other uses. We're already getting requests for data. I have at least half dozen requests on my desk to provide data anywhere from a county to five counties or what have you.

Slide #3, (not reproduced) This slide depicting the three state SCORP's is shown to indicate that the basic documents underlying the development of our work comes from the SCORP. The basic data input to the program is the household survey information gathered by the respective states for their SCORP's.

Slide #4, (not reproduced) This slide shows a number of other planning reports and is included here to show that the program really goes beyond just the state SCORP's to other types of planning.

Slide #5, This slide depicts the data program process of our basic model that we're using for our effort. It starts with the household surveys and origin-destination surveys which are basic to the program. We also have as an integral part of the model a transportation network which functions as part of the distribution portion of the model, but it is an indication of the route that the individual recreationist follows in getting to his recreation destination. In addition,

we have developed attractiveness indexes for each one of the zones. In our case, for each one of the counties. The attractiveness index works together with the distance decay information and transportation network to distribute trips. I'm not going to try to further explain all these details to you because I do have a supply here of our program design which is available to any of you who are interested in going into it further. It would be impossible for me to describe all of the intricacies of the model at this point.

Slide #6, This slide shows subcommittee members working on the data. It is shown to give you an indication that when we got into the original work, we had to take each one of the SCORP's and break base data down by hand to resolve differences in order to get standardized input into the model.

Slide #7, (not reproduced) shows a number of the participants of the subcommittee working with the distribution map.

Slide #8 is an enlarged version of the distribution map. The map itself was produced by a computer based on data developed by the work group. The basic road system of the entire region. Once having located all the primary roads and what we call a centroid within each one of the counties within the region and for each one of the external zones, the computer produced this map for us. Now, having produced the first cut of this map, the work group had to go back and check to see if it was realistic, and make sure, for example, that Interstate 5 did not zigzag all the way over to the Oregon-Idaho border and then back into its exact location. In other words, look for inconsistencies and inaccuracies in the map. But the map is computer-produced and does represent the transportation system of the northwest region. I might say, with respect to transportation systems, although the lines on this map represent roads they could just as easily represent routes by air travel. So if air travel is determined to be an important part of recreation traffic for Alaska, it could easily be incorporated into the model.

Slide #9, This slide represents the distance decay function or curve for camping. The model incorporates similar functions for each of the 16 activities. It's the relationship of participation in that activity to average distance traveled. It is an integral part of the distribution model.

Slide #10, This slide shows one of the data program output tables for 1970. This is the camping trip table for King County, Washington. King County is zone 17. First let me point out, that the total camping participation or productions

is shown in the upper right hand corner for King County, Washington, which happens to be the county in which Seattle is located it's 3,588,000 camping occasions. Of that 3,588,000, 147,000 camping occasions to Chelan County, (Zone 4), which happens to be a very attractive eastern Washington county about three to four hours travel time distance away. Another example, Idaho County, Idaho, (zone 64), receives 21,700 camping occasions from King County residents not to belabor it, I'll go right on to something that's dear to all your hearts. The trip table indicates that 3,500 people from King County went to Alaska to participate in camping. I hope you don't all challenge my figures at once.

Slide #11, this is the camping trip table for Multnomah County, Oregon, which is the county in which Portland, Oregon, is located. I'm not going to go over the disturbances shown here but I would like to mention that we're presently trying to get this table reversed. In other words develop a table showing origins of recreationists for example. Chelan County, you would have the total camping occasions taking place in Chelan County, and you have the zones representing all the places where recreationists are coming from rather than all the places that they're going to.

Slide #12, I think this is my final slide. It's in there to indicate to you that we have produced a program design. It does outline the procedure that we have used to date in getting to where we are. We have also instituted a grant proposal to the Northwest Regional Commission for a new study to generate new data for our effort. It would be an origin-destination travel and expenditure survey. And if we could do this work, it would improve immensely the basic inputs and as a result the the output data that we could get. I heard the point mentioned earlier today, "garbage in, garbage out." We don't really consider the information into our effort garbage, too, it's the best thing we've got. We're not satisfied with it, however. We need new household surveys and we need an origin-destination travel and expenditure survey. If we can get those two things, then we truly will have a good representation of demand or recreation participation in the northwest. That's the end of the slides. I do have a couple of other closing remarks that I'd like to make.

Another thing we would like to look into are demand-supply relationships. I pointed out earlier that we've been looking primarily at demand, consumption, participation, what have you. It's a whole additional big area to try to get a data bank with the best recreation supply data we can get for the region. Only after we get supply data on an equally good

basis can we do demand-supply and needs analysis for all these areas.

One thing that I don't want to fail to mention is that the gravity model is fairly flexible. I showed you the transportation network earlier. We can modify the network to incorporate a new highway. For example, we did just develop a very important recreation highway in the northwest. It was the North Cross State Highway. It passes through the North Cascades National Park. In fact, the national park was the impetus for developing it. But it has a tremendous potential impact on recreation use because it opens a new avenue not only into the national park but into the eastern Washington counties. If you run the program without this road and then you run it with it, the output would reflect two totally different distributions. Another thing that can be changed are attractiveness indexes. For example, if a new national or regional is established park in any county it would affect the attractiveness index for that county and a totally new distribution of recreation use would result. All these things are potentials. We don't say that the gravity model is the ultimate because there are a number of weaknesses and difficulties with this model as with any model.

We looked at some other models. We looked at a systems model. We looked at the procedure that California is using in their distribution model. And we looked at Michigan's model. But the Washington State Department of Highways had the gravity model all set up in their computer in Olympia. We had a work group member that was knowledgeable about, the use of the gravity model and it just turned out this particular model worked out best for us. Some of the members of the work group have indicated that in the future we might want to change and go to a different type of model. This is perfectly acceptable because actually what's more critical in this whole thing, and I think we've talked around this point here today, is that we get some good standardized basic input data. And once you get that, you can go to whatever type of model that you want, if you get good household survey information, if you get good origin-destination information, and if you make a reasonably good attempt at developing attractiveness indexes or a good inventory of recreation supply information, then those basic things form the basis for utilizing almost any model. So it isn't so much which model you use. This one works for us. But you've got to get started some place. This is where we started and we're fairly happy with where we are today. (Are there any questions?)

Lou Waller: How often do you anticipate you're going to have to intensively update your data?

Keith Shone: It doesn't have to be that often. Actually, we're not in too bad shape in some areas, for example, I'd say the household survey data in Oregon is pretty good. It was gathered on a county-by-county basis and it's fairly recent and they need to do a spot check on their existing survey and then possibly we could continue to use that. In the case of the State of Washington, their household survey information was gathered in 1967. We think that's too old and they're in the process of developing a new household survey. In the case of Idaho, the household survey information there is not really that good. So we're going to be trying to convince them to do an early household survey there so we can get that information at least on a comparable basis with both Oregon and Washington. But see when you're put in a position of having to put together a regional model, even though you're not that happy with Idaho's data, you take it and you use it and in the end you say it's the best thing you've got. So to answer your question, I don't think we'll have to do it that often. Right now we're trying to get a reasonably good household survey coverage across the region and then I would say update maybe on a five-year reoccurring basis. Anything else?

Question: Did you run a sensitivity analysis on your model where you assume maybe your data is too low or too high to see what effect it might have on end results.

Keith Shone: Well, the Washington State Department of Highways does all the sensitivity checks as far as the calibrations of the distribution model are concerned. I'm not sure I understand your question completely. As far as sensitivity, I suppose that our approach to sensitivity has been just good, hard spreading out the end results and saying, "those look pretty good" or "maybe we should look at those again." Because we don't have any good checks on results. I've heard on occasions here today mention about compilation of use that's occurring in an area and maybe utilizing that as a measure of demand. I think that we really have a weakness there, because for one thing, you're never going to be able to get a total inventory of all the uses that are occurring at all the existing recreation areas, much less get the use that's occurring at nondesignated recreation areas. So what do we really have to compare with? We take the most knowledgeable recreation planners in each one of the areas that are concerned, and we sit them down around the table and we look at that camping trip table or the summary table for picnicking, and we look at the

counties across the board and we say, "review the information and with respect to accuracy of the distributions." And in the end, I think that's the best thing we can do. Now once we establish some trend information and once we do some new household surveys and some new OD surveys, I think we'll be in a much better position to check our information and get some kind of a trend going.

Question: What I meant was, let's say on your household survey for Idaho, you feel that the participation per unit of socio-economic variables, whatever you're using there, is low or high, you could always increase that and run it through your model and see what the effect would be on your total expected demand or else you might say that the use patterns the people are traveling greater distances or shorter distances and change those volumes and see what effect it would have on your expected demand.

Keith Shone: Right, we're playing with that a little bit. Like on the first run we made the model and I showed you the distance-decay function for camping, we got some of what we thought were some weird results, so we did play with distance-decay a little bit.

Lou Waller: Keith, I have one more question. Does your system, compiling the data and so on, does this interfere in any way with or cause problems with the Federal agencies and some of them like the Park Service and the Forest Service, and some other possibly, Fish and Wildlife I know, that report to a national office their visitor counts?

Keith Shone: The thing I would say about that is, I think it's fine. I think the Recreation Advisory Council Circular on Standard Use Measurements is just great, however, the use the standards of measurement not proposed. I might say the reason why is that none of our states are using those standards of measurement. But there's no reason why we can't report in one standard of measurement and also develop factors for converting that data into many forms. A visitor hour can have a factor applied to it that can change it into an activity occasion or what have you. I think you understand the point that I'm making. As long as we can get the word out to the people who are collecting the data to, at the same time that they're gathering information in visitor hours, they'll also keep tract of total number of visits so that we can develop a factor from which we can convert visitor hours into activity occasions, activity occasions being the basic unit of measurement that we're using in our study. So I don't see that as a problem as long as we do fully understand the unit that they're using and that we

develop some factors from which we can convert them into the numbers that we need. Because I know that these agencies have mandates from their Washington and other offices to collect in those forms.

Amy Paige: What about the need to inform the general public of what's happening and the problems that arise using these kinds of definite terms that really make very little sense to the layman on the street. So many visitor days is sort of gobbley gook. You're trying to tell people that so many people go to a certain area or there's so many people who swim in a lake. To say it in visitor days really. . . I don't know, I think that there has to be some regulation of the general public information and the form it should take that is understandable. Even for Congress I think there's difficulty that we're facing in trying to explain what is happening or what we expect to happen by having to use these other terms. Congressmen are pretty much laymen in this field, too, I would guess, and would find it much easier to understand something just straightforward.

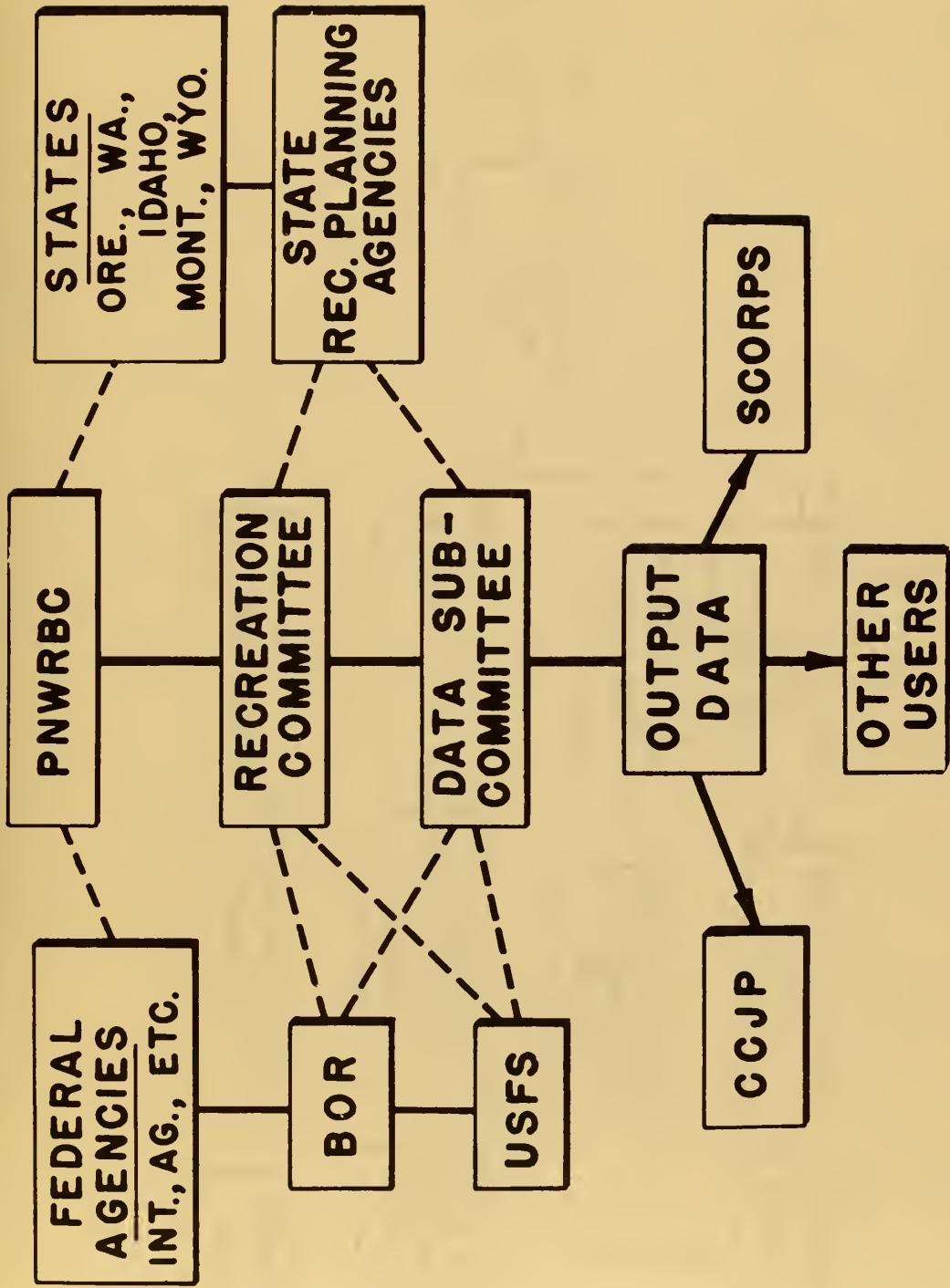
Keith Shone: I didn't mean my earlier statement to be sort of a cop-out on that. I guess, the one thing I was trying to get at was that we get into political things in many instances and it's almost impossible to try to fight the RAC circular on Standard Use Measurements which was put out a number of years ago, the basic intent of which was to put us on a standardized basis of collecting data. I think that was fine and I don't want to judge those people because I wasn't really around.

Amy Paige: No, I'm not advocating that because I don't think that is any more comprehensible. How many activity hours people spend looking at the Kennedy Center is the kind of data I've seen.

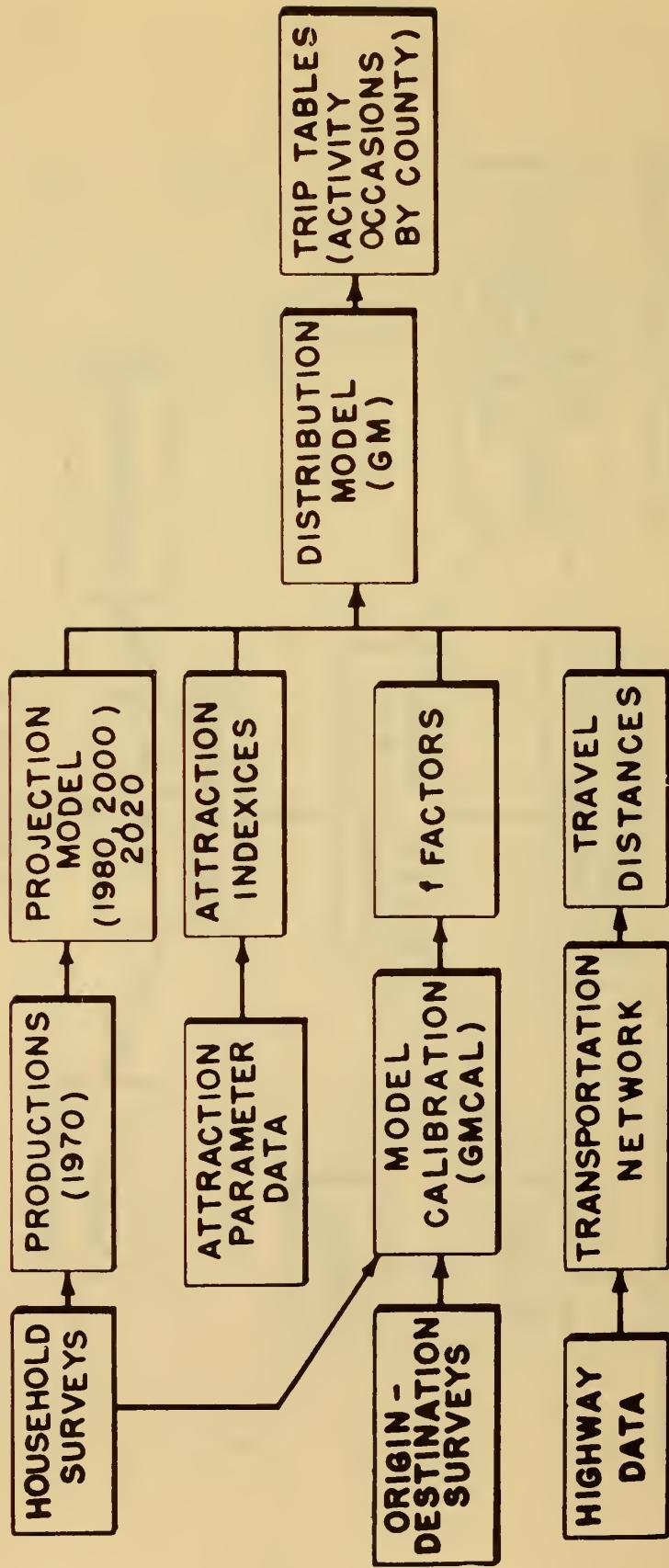
Keith Shone: Well, the point I was trying to get to is that I think its almost an insurmountable task, for myself at least at my level, to try to change all the years of having lived with the RAC Circular on Standard Use Measurement. The point I started to make was if I would have been around at the time the RAC Circular was being drafted I might have said, I might have at least commented to my own agency that I thought they were on the wrong track with the proposed unit of measurement that they were using. But since I wasn't around then and since it is fact now, I think it's a very difficult thing to change so we're going to have to live with some of that unless someone at a very high level would choose to change it and I just don't think its a practical matter to think that you're going to get anybody

at that level interested enough in a unit of measurement for recreation to put out another document similar to the RAC Circular. That may or may not be the case. As far as your point about giving the information out to people, I think if we can do this factoring that I mentioned earlier I think that we can help to alleviate some of that because we will at least be presenting a more consistent information system. For example, with our system that we're doing in the Northwest, we intend to be giving out the same kind of information to Federal, State, local, private agencies that call into us and ask us for recreation planning information. So we see this at least as reducing part of the problem in the area of recreation demand information. I don't know to what extent but at least to some degree and I think that would be the case here as well.

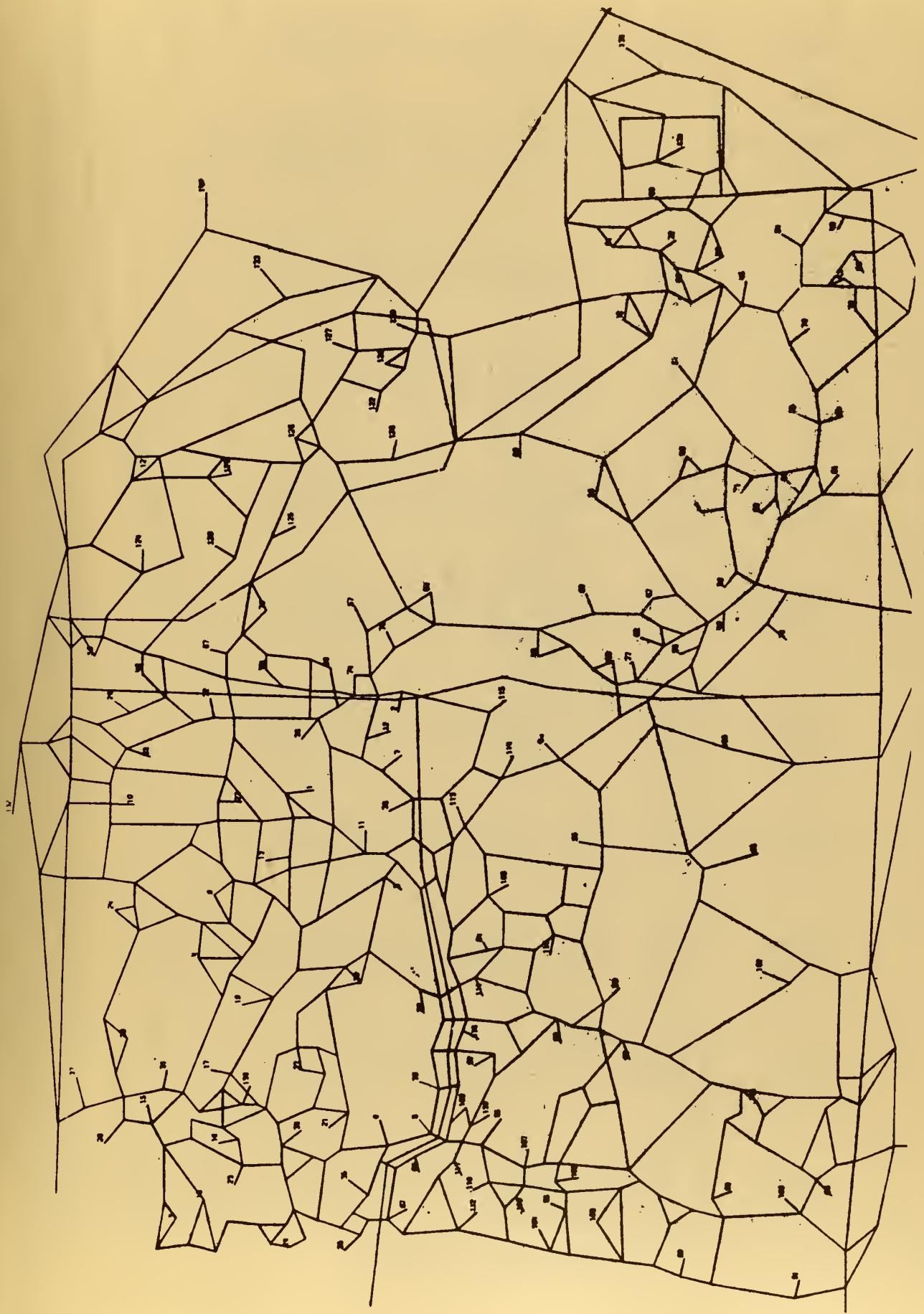
ORGANIZATION CHART  
REGIONAL RECREATION DATA PROGRAM



## THE DATA PROGRAM PROCESS



Map of our recreation distribution system



RELATIONSHIP OF  
CAMPING PARTICIPATION  
TO TRAVEL DISTANCE

PARTICIPATION

DISTANCE

Distance decay function for camping

TABLE 1 FROM ZONE 17 TO ALL OTHER ZONES (ABS. TOTAL = 35882)

ZONE	00	1	2	3	4	5	6	7	8	9
0	—	104	274	1470	563	262	96	219	424	424
10	96	275	64	655	729	636	564	4008	588	461
20	230	619	131	537	460	437	102	1074	357	481
30	317	920	266	205	675	51	115	490	138	690
40	46	83	46	46	108	34	103	153	255	81
50	194	51	52	83	46	51	64	115	115	140
60	46	81	56	56	217	35	56	225	118	98
70	73	38	45	39	107	117	35	77	53	64
80	57	51	154	154	196	138	192	425	426	307
90	153	138	174	219	281	138	130	71	260	133
100	125	174	107	107	256	266	61	259	123	225
110	214	237	319	173	187	195	160	256	184	205
120	138	192	123	123	143	163	184	154	133	153
130	123	115	159	159	58	57	58	70	64	14
140	57	58	57	57	58	64	—	—	—	—

TABLE 1 FROM ZONE 18 TO ALL OTHER ZONES (ABS. TOTAL = 31691)

ZONE	00	1	2	3	4	5	6	7	8	9
0	—	6	8	16	57	99	27	7	25	18
10	7	16	4	35	95	71	98	112	311	54
20	13	44	8	239	27	52	7	76	36	40

PRINTOUT OF THF REPORTS CAMPING DEMAND TRIPTABLE GENERATED FROM GM  
03/05/75

TABLE 1 FROM 70NF 110 TO ALL OTHER ZONES (ABS. TOTAL = 25821)

ZONE	00	1	2	3	4	5	6	7	8	9
0	—	13	22	49	72	71	3311	21	200	26
10	13	46	12	63	119	48	71	92	52	56
20	112	106	16	62	45	203	17	121	44	46
30	1485	58	39	35	59	34	24	38	22	78
40	12	18	11	10	19	9	25	38	43	18
50	30	12	12	20	13	43	10	13	23	35
60	10	19	20	13	13	8	13	13	19	21
70	14	9	10	10	22	9	17	13	15	34
80	13	13	35	26	35	199	2307	234	853	73
90	91	49	117	97	57	41	22	406	48	158
100	51	85	138	212	165	294	16	406	47	6084
110	306	140	333	48	49	46	271	3311	69	711
120	26	32	26	25	28	32	28	26	25	28
130	23	26	22	13	11	15	20	19	3	13
140	13	13	13	13	18	18	18	18	18	13

TABLE 1 FROM ZONE 110 TO ALL OTHER ZONES (ABS. TOTAL = 12361)

ZONE	00	1	2	3	4	5	6	7	8	9
0	—	—	1	1	4	5	6	25	1	8

YOKOYAMA, FRED  
REGIONAL PLANNING  
COMMITTEE  
OF THE RECREATION AND WATERS COMMITTEE  
THE PACIFIC NORTHWEST REGIONAL COMMISSION

ORIGIN DESTINATION TRAVEL AND EXPENDITURE SURVEY  
FOR  
WASHINGTON, OREGON AND IDAHO

PROGRAM DESIGN DATA PROGRAM  
RECREATION DATA PROGRAM

GRANT PROPOSAL  
TO THE  
PACIFIC NORTHWEST REGIONAL COMMISSION

Dr. Dwight McCurdy  
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### A System for Measuring Public Use Measurement on Wildlands

Public use data is one of the most important tools wildland administrators have for planning and executing management decisions. For example, public use data can help the land manager:

1. Appraise opportunities and potentials.
2. Allocate land and water resources.
3. Project use and demand.
4. Assemble programs.
5. Adjust goals.
6. Prepare budgets.
7. Allocate funds.

Three types of public use data are most useful:

Activity hours of use (by output activity)--this is a good gauge of service and facility requirements.

Number of Visits--these reflect the number of impressions gained by people and therefore provide an index to public approval or disapproval.

Peak loads--peak load data provide the basis of plans for capacity or overload crowds.

Since wildlands vary in size, accessibility, and pattern of development, no one technique can be used to measure public use and often multiple-techniques are needed. Therefore, after evaluating and testing most existing public use measurement techniques on several types of wildlands (parks, refuges, forests), the techniques described in this manual are recommended. These techniques should provide accurate public use data at minimum cost and effort for most wildlands.

Estimating public use on many wildlands, where the visitors are dispersed throughout the area, presents a difficult problem to land managers. To make such an estimate, the manager must assume that the visitors arrived at the area by automobile or some other vehicle. Second, knowing the number of occupants and their public use activities per vehicle when at a given site in his area on a given day, the manager has a basis to estimate public use.

For example, if a land manager knew that, on the average, a vehicle observed near a bridge in April had two occupants who fished for five hours, he could count the number of vehicles observed in April and multiply that number by the average two (2) to estimate the number of visits. Progressing further, to estimate the activity hours of fishing for that site for the month of April, he could multiply the number of vehicles by 10 (2 occupants x 5 hours). Completing this process for all sites for each month, an estimate of the number of visits and activity hours of public use, by activity, for the entire managed area or specific site could be made monthly or for the entire year. This simple example is somewhat more complicated when the visitors participate in several activities, rather than the single one of fishing, and their numbers are not equally distributed over time.

To measure public use at your area, the following steps should be followed:

Step 1. All public use activities on the area should be identified as to location, season, and time of occurrence. Emphasis should be given to measuring those activities and sites having the greatest use.

Step 2. Technique should be adopted for measuring the various public use activities. The techniques listed below have been found to be reliable and relatively inexpensive to administer. However, many of the techniques are not complete in that only an indication of the amount of public use is obtained. Parameters are needed to convert the vehicle or boat estimates into visits and activity hours. The methods to be used in determining these parameters are given in Step 3.

#### Public Use Measure Techniques

##### 1. Office Records.

These records include such activities as conducted tours, organized group functions, camping receipts, etc.

2. Second party records. These records include activities administered by concessionaires, organized groups, public institutions, etc.
3. Membership lists. These lists include activities by clubs, organized groups, concessionaires with boat mooring spaces, etc.
4. Self-registration records. These records include areas where hunters, wilderness users, boaters, etc., are required to sign in and out.
5. Traffic counters. Should be used for wildlands, areas, and sites with high density use and controlled access having few entrances and exits. See Appendix A for instructions on operating traffic counters.
6. Predetermined vehicle counts. Vehicle and/or boat counters via observation during predetermined sampling periods, should be used where traffic counters are not feasible but where public use is sufficient to warrant regular patrols to count vehicles. See Appendix B for instructions.
7. Random vehicle counts. Vehicle counts via observation when visiting an area or site for another purpose should be used for areas not receiving sufficient public use to warrant regular patrols. See Appendix C for instructions.

Step 3. After the techniques for estimating the number of vehicles, receipts, members, etc., have been adopted, the next step is to determine the parameters giving the number of visits and activity hours, by activity, that each represent. The only situation where parameters would not be needed is when the number of visitors and activity hours can be obtained from office or second party records. The techniques to obtain the data for calculating the parameters are listed below in order of reliability:

#### Paramenter Measurement Techniques

1. Interview every group leaving.
2. Interview every nth group leaving (a minimum of 5 percent of the groups, with 10 percent recommended).
3. Interview every group leaving during predetermined stratified sampling periods (a minimum of 10 percent of each strata).

4. Pass out questionnaires to every nth vehicle (group) entering or leaving (a minimum of 10 percent, with 20 percent recommended).
5. Pass out questionnaires to every vehicle (group) entering or leaving during predetermined stratified sampling periods. (A minimum of 10 percent of each strata.)
6. Place questionnaires on parked vehicles during predetermined stratified sampling periods. (A minimum of 10 percent of each strata.)
7. Place questionnaires on parked vehicles when visiting public use for other purposes.
8. Respondents submit periodic activity reports. This includes club or organization members, boat slip renters, etc., who use areas or facilities not open to the public. (A minimum of 10 percent of the users should submit a monthly activity report).
9. Knowledge and experience.

Appendix D gives a sample questionnaire and/or interview schedule and brief instructions on how it should be constructed and used. A 10 percent sample is generally sufficient for obtaining visit estimates of plus or minus 20 percent of the true number of visits for an area (95 per cent probability).

Interviewing the visitor as they leave the public use area has been found to give the most accurate data. For example, single individuals and groups staying a very short time (one-half hour or less) are less inclined to return questionnaires than other visitors.

When sampling is required for the interviews, passing out questionnaires and/or respondent reports, the stratification procedures discussed in appendix B should be followed. It should be pointed out that stratification of the samples is the most effective way to obtain representative data of what actually occurs.

After the data has been collected, the next step is to calculate the parameters (visits, activity hours) for the entire area or specific public use site.

Assuming during a hypothetical month, we have interviewed or received questionnaires or received monthly activity reports

from multiplying the parameters by vehicle estimates, receipt records, membership lists, etc., the land manager can estimate the public use for his area. However, it should be pointed out that for most wildlands a combination of the techniques discussed will be necessary for measurement. Emphasis should be given to those areas and activities with the greatest use. Several modifications of these public use techniques are presented in the cases described in Appendix E.

Parameters should be updated every three to five years. However, if public use patterns change before this time period, the parameters should be recalculated. Examples of pattern changes are: establishment of new regulations, change in times that activities are allowed, or addition of a new trail or observation tower.

Success in public use measurement depends upon an accurate traffic count record. Therefore, a complete, season-long traffic record is needed. Regarding the counting devices, the more sophisticated require a higher initial investment but their use is often justified over the long run. Where traffic is moderately light or vandalism is high, pneumatic traffic counters are satisfactory. However, pneumatic counters do not operate well in snow or ice.

The traffic counters should be installed at all entrances to each refuge or high density site. After installations, the counters must be read and checked periodically, every third or fourth day. To obtain peak load data by weekdays and weekends, the counters should be read on Monday mornings and Friday afternoons.

When taking readings, axle counts (not vehicle counts) should be recorded. Axle count means two counter registers per powered vehicle, one per two-wheel boat trailer, and so forth.

Some traffic counters cannot be adjusted to count axles and record one count for every two axles that actuate the counter. If such counters are used, the vehicle count must be multiplied by "2" to obtain an axle count for use on record sheets.

Record seasonal axle count readings on Form A. Separate forms must be completed for each counter. Axle readings must be taken from tapes where time-recording counters are used. For example, if hourly recording, tape-printing traffic counters are used, the total 24-hour sample-day count from 0900 one day until 0900 the following day is

obtained by adding the 24 printed entries starting with 1000 hours on the sample day.

### Installation of Traffic Counters

Before the beginning of the calibration period, counters must be installed at all entrances to every site which will be sampled. Counters must be installed on roads leading directly to the public use site, not on roads leading past the site to other destinations. Counters need not be placed on site exits carrying one-way traffic. When pneumatic counters are used, two counters may be installed at each entrance to provide insurance in case one of the counters fail to work.

Care must be exercised in placing counters. An example of correct and incorrect placement is shown in the following sketch:

Traffic counters should be installed on level, straight sections of roads, if possible. There should be at least 50 feet (and preferably 100 feet) of straight road on either side of pneumatic tube. The tube should be at least 50 feet from points where vehicles usually stop for the occupant to read signs, pay fees, etc.

Traffic counters in subsequent years must be kept in the same location as during the first sampling year. A change in counter location may alter the relationship between axle count and the estimated variables.

### Counter Operational Problems

1. **Vandalism** - This factor may prove to be somewhat of a problem because if a counter gets stolen or damaged, important use information may be lost and render previous data incorrect or inaccurate. Another form of this problem that may be encountered is that of young people deliberately driving over or jumping on the pneumatic hoses. This problem increases error considerably in a very short time. The only recommendation pertaining to the above problem areas are those of immediate replacement or repair of vandalized counters. There is not much that can be done about the latter problem except good judgment when tabulating the data.
2. **Turn Arounds** - This is a problem where fees are charged. People drive into the area and then turn around because they did not want to pay the fee. However, only if there are many of these turn-arounds does the error

become significant. Moving the traffic counter beyond the point where the turn-arounds occur could eliminate this problem.

3. Buses - Buses can prove to be a major problem. Buses are recorded as two axles on the counter but may account for 40-50 people; this obviously creates an extreme variance in the data.
4. Maintenance of Areas - Maintenance of roads and grounds on the various sites pose some problems. Hoses may be cut or damaged as the result of mower blades. Care must be observed in the placement of the counter on the sites so as to eliminate any possibility of damage to the hose or the counter itself from mowers, tractors, and heavy equipment.
5. Tar, dirt, and gravel roads - Roads constructed of these materials prove to reduce counter efficiency over time. On areas where the pneumatic hose of the counter is placed across a tar or dirt road, vehicular traffic causes the hose to depress into the road after a short time. The hose needs only to sink a fraction of an inch and vehicles will not exert enough pressure to activate the counter mechanism. On gravel roads, excessive traffic causes a reduction in the effective life of the hose due to the cutting of the hose by sharp gravel. Relatively large errors can be significantly reduced by diligence in replacement or repositioning of the pneumatic hose when it shows signs of ineffectiveness of wear.
6. Angle of Pneumatic Hose to Vehicular Traffic - This factor is a problem where the counter is placed in close proximity to entrances. This positioning often causes the vehicle to be aligned at other than a right angle to the hose resulting in the front or rear tires not crossing simultaneously. The counter then records an excessive number of axles. Care in hose placement in relation to angular flow of traffic will eliminate this source of error.

#### Procedures for Converting Axle Counts to Vehicle Counts

For most wildlands, a considerable number of the vehicles have more than two axles (boat or camping trailers, double or tandem trucks, etc.). In addition, many areas will receive considerable administrative and service vehicle traffic. To correct this bias, gate attendants or other personnel should periodically record the number of axles per vehicle.

The periods for recording the above data should be scheduled similar to the procedures discussed for counting vehicles in Appendix B. As an example, assume 10 public use vehicles are recorded:

2 axle vehicles - 7 vehicles, 14 axles  
3 axle vehicles - 2 vehicles, 6 axles  
4 axle vehicles - 1 vehicle, 4 axles  
3 admin. vehicles - 0 vehicles, 6 axles

Thus, 1 public use vehicle per 3 axles

#### Technique For Estimating Missing Axle Count Readings

When a traffic counter becomes inoperative or for any other reason the counter reading is not obtained, the missing reading can be estimated if readings are also being obtained at sites receiving similar amounts of public use during the time period in question. Four of the five sites at one pretest area, when tested statistically for a correlation between quantity of use, were found to have  $r$  of greater than .900.

Assuming for the example below at Site A, the counter was broken during the period preceding the fourth reading. However, since Site B received an equal proportion of use during the preceding recording periods, to estimate the missing counter reading (fourth), the percentage increase in axle counts for Site B can be added to Site A's third axle count reading.

<u>Traffic Counter Readings</u>	<u>Number of Axles</u>	
	<u>Site A</u>	<u>Site B</u>
1	6,000	10,000
2	6,500	10,800
3	7,225	12,000
4	Missing Reading	12,500

12,500 Site B, 4th Reading  
12,000 Site B, 3rd Reading  
500 12,000 Site A, 3rd reading =  
.042 percentage increase in  
axle count, Site B

7,225 Site A, 3rd reading  
 .042 (see previous page)  
 300 increase in axle counts  
 +7,225 Site A, 3rd reading  
7,525 Site A, estimated 4th axle  
 count reading

"Night Use" Procedures

When "night use" adds 10 percent or more axle counts to the normal activity day counter readings, the average percentage of these additional axle counts for the 12 sample days should be subtracted from the season axle counts before making the visit and man-hours estimates.

The following example is given to illustrate the mathematical procedures:

<u>Sample Day</u>	<u>12-hour axle count</u>	<u>24-hour axle count</u>
1	10,000	12,000
2	5,000	7,000
.	.	.
(1)	.	.
.	.	.
12	<u>12,000</u>	<u>13,000</u>
	<u>120,000</u>	<u>140,000</u>

- (2) 140,000 axles for 12 sample days, 24-hours  
120,000 axles for 12 sample days, 12-hours  
20,000 axles of night use
- (3) 20,000 axles night use = 14.3% ratio of night use  
140,000 axles, total to total use
- (4) Season axle count adjustment  
 600,000 axles, assumed season total  
-14.3 % night use  
514,200 axles, actual season public use
- (5) Thus, 514,200 axles would be the representative season axle count (X).

When counting vehicles via observation, the first task is to develop a sampling scheme that will provide data that is representative of the amount and type of use patterns occurring on the area in question. A 100 percent vehicle count is not needed. Data from the pretest areas indicate a minimum of a 10 percent sample is needed for reliable estimates. However, the sample must be stratified into time periods that insure all public use patterns of a significant amount and difference be measured in proportion to its occurrence. For example, generally more and different use occurs on weekends and holidays than on weekdays, afternoons than mornings, etc.

The length of the strata (hours) should be approximately the same length of time as the average public use visit for the month and area in question. A four-hour strata time period is most common. When the average visit is significantly smaller or larger than four hours, a correction factor can be used and is described later.

Once the strata have been determined, vehicles should be counted at the selected public use areas a minimum of one-tenth of each strata occurring each estimation period (generally a month). In some situations, an estimation period for an entire season rather than a month may be more administratively feasible (for example, a six-week season).

WARNING: The number of strata should be kept to a minimum since each will require an equal amount of sampling. Two strata requires twice the sampling as one strata. However, stratification is the major tool for obtaining representative data.

The distribution of the samples for each strata should not be done at random but spread evenly throughout the month. This is called purposive sampling and aids in overcoming such factors as weather.

As an example, assume we have stratified like periods of use into (1) weekends and holidays, weekdays; and (2) three 4-hour daily time periods, 8:00 a.m. to 12:00 m., 12:00 m. p.m., and 4:00 p.m. to 8:00 p.m. If we have a month with 10 percent sample, each of the daily time periods would be sampled once a weekend and twice on a weekday. Spreading these samples over the month we might have the following sample schedule:

<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>
		Holiday				
1	2	3C	3	5	6-A	7
8-A	9	10	11-B	12	13	14
15	16-B	17	18	19	20	21-B
22	23	24	25	26-C	27	28
29-C	30	31-A				

#### Daily Strata

- A 8:00 - 12:00 vehicle count
- B 12:00 - 4:00 vehicle count
- C 4:00 - 8:00 vehicle count

A yearling sampling schedule for weekend and weekday, and daily time periods is enclosed as an example.

In some cases, public use might be sufficient to warrant estimating the amount of use for specific days such as July 4th or opening weekend of a hunting season, and then stratifying the remainder of the month or season for sampling.

In accordance with the sampling schedule, actual patrols should be initiated. Patrols should count stationary and moving vehicles. Counts should be made at each of the public use sites during the designated time period, regardless of weather conditions, and recorded on a patrol sheet.

A routine patrol route should be discouraged, since the time period for vehicle counts from start to finish may require several hours to complete. Thus, through a variety of circulation patterns and starting times, similar time situation bias can be eliminated. Also, stationary vehicles nearest to the identified site should be included in the vehicle count for that site. For example, vehicles along the gravel roads approaching a fishing access point should be included within the vehicle count for that site. For example, vehicles along the gravel roads approaching a fishing access point should be included within the vehicle count for that site.

If public use occurs in distinct patterns and the sampling strata are based totally on these patterns, vehicle counts should not be made at random within the strata period but when most, if not all, of the vehicles are present. An example would be morning and evening duck hunter-vehicle counts.

The next task is to estimate vehicle counts at each dispersed site. This requires the following ratio:

Where C is the estimated number of vehicles per strata per estimation period, A is the number of days per estimation period (week or weekend days), C is the number of vehicles recorded at a given site or refuge during a given strata per estimation period, and B is the number of days sampled at a given site during a given strata per estimation period.

Applying the formula to a hypothetical site for a month estimation period, for weekdays, 8:00 a.m. to 12:00 m. time period results as follows:

$$C = \frac{(21 \text{ strata periods per month}) (24 \text{ vehicles recorded})}{2 \text{ samples}}$$

= 252 vehicles estimated for weekdays for the month during  
8:00-12:00 a.m.

These vehicle estimates for weekday and weekend and semidaily sampling periods are then totalled to obtain a monthly estimate (or other estimation period) for the total number of vehicles at each area or refuge. Statistical methods for obtaining the error for these vehicles estimates are enclosed.

Correction Factor to be Used When Average  
Visitor Stay Differs From Strata Time Periods

If all strata are sampled equally they need not be the same length as the average time period visitors are at the refuge or public area in question. However, when there is a difference of more than an hour, the vehicle estimate should be made for the entire month rather than by strata and then totalled.

The following ration can be used:

$$\frac{\text{No. of patrols, vehicle counts}}{\text{Number of vehicles counted}} = \frac{\text{No. of days in estimation period}}{\text{Vehicle Estimate (noncorrected)}}$$

$$\text{Vehicle Estimate (corrected)} = \frac{\text{Visitor estimate (uncorrected)}}{\frac{\text{Average time in day that use occurs during the estimation period (month)}}{\text{Average time visitors (groups, vehicles, etc.) remain at the refuge or area during the estimation period (month)}}}$$

As an example, assume we carried out the monthly sampling scheme presented on page 22.

<u>Weekend Patrols</u>	<u>Number of Patrols</u>	<u>Vehicle Count</u>
8:00 - 12:00	1	10
12:00 - 4:00	1	15
4:00 - 8:00	1	12

<u>Weekday Patrols</u>	<u>Number of Patrols</u>	<u>Vehicle Count</u>
8:00 - 12:00	2	11
12:00 - 4:00	2	18
4:00 - 8:00	2	6
	9	72

$$\frac{9 \text{ patrols}}{72 \text{ vehicles}} = \frac{31 \text{ days}}{X \text{ estimate (uncorrected)}}$$

$$X = 248$$

$$\begin{aligned} \text{Vehicle Estimate (corrected)} &= 248 \times \frac{12\text{-hour day}}{2\text{-hour ave. visit assumed}} \\ &= 1,488 \text{ vehicles} \end{aligned}$$

As mentioned earlier, this method should be used for measuring public use at areas not receiving use of a sufficient amount to warrant more reliable techniques. The procedures in Appendix B should be followed, except the scheduling of predetermined sampling periods. When visiting the sites for other purposes, a patrol sheet (Appendix B) should be filled out specifying the strata period (day, time, etc.). Then, at the end of the month or estimation period, these sheets can be used to estimate the number of vehicles for the respective strata they represent. If the area has not been visited for one or more strata, the number of vehicles can be estimated from the other strata estimates. For example, if the 8:00-12:00 time period for weekdays does not have a patrol sheet, and through past experience you know that the area generally receives half the use on a weekday as weekend days, then the following calculations can be made:

-2 visits, weekend, 8:00-12:00 gave 20 vehicles  
 -Thus, each weekday would have approximately 5 vehicles during the 8:00-12:00 time period.

### Questionnaire

A sample questionnaire and cover letter is enclosed. The questions can be modified. The number of activities in question #3 should be kept to a minimum.

### Interview Schedule

When interviewing, the questions can be printed on mimeographed paper rather than the card. For question #3, the respondents should be given a card listing the possible activities.

### General Instructions

1. When given a questionnaire or interviewed, the respondent (visitor) should be given a brochure, leaflet, map, etc.
2. Interviewing or passing out questionnaires should be assigned to a few individuals that are "well accepted" by the public. These individuals should also understand the importance of their task and be consistent in carrying out their assignment.
3. The questionnaires and/or interview schedules should be dated and if they represent a specific site or area this should be indicated on each card or sheet.



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Dear Visitor:

We are currently measuring the public use within the \_\_\_\_\_ area. This recreation information is needed for management purposes, so that we might better serve you.

The attached questionnaire is one means of gaining the needed information. We cordially invite you to complete the questionnaire and return it to us at your earliest convenience. If you have any questions, comments, or suggestions, write or contact us.

Thank you for your cooperation. You may be receiving additional questionnaires if you revisit us. Please complete and return them too.

Sincerely yours,

Area Manager

Attachment

Date \_\_\_\_\_

Area \_\_\_\_\_

### Public Use Survey

1. How many individuals are in your vehicle? \_\_\_\_\_
2. How many hours did you stay for this visit? \_\_\_\_\_
3. For the activities you participated in during this visit, please give the amount of time spent in each:

Visiting Goose Pens	_____	hrs.
Visiting Mahnomen Trail	_____	hrs.
Visitors Information Station(s)	_____	hrs.
Observing Wildlife	_____	hrs.
Sightseeing	_____	hrs.
Walking or hiking	_____	hrs.
Photography	_____	hrs.
Berry picking	_____	hrs.
Horseback riding	_____	hrs.
Boating (and Canoeing)	_____	hrs.
Fishing	_____	hrs.
Hunting	_____	hrs.
Snow Skiing (Cross-Country)	_____	hrs.
Snowmobiling	_____	hrs.
Snowshoeing	_____	hrs.
Dogsledding	_____	hrs.
Other (specify)	_____	hrs.
Total*	_____	hrs.

\*The total should equal the number of hours given in Question 2.

4. How many miles did you travel from home to get here, one way? \_\_\_\_\_

The following cases are examples of modifications of the public use measurement techniques described.

### Case I

At this area, most of the public use is duck hunting. The visitors (1) hunt in the morning only, (2) hunt in the late afternoon only, (3) hunt all day, or (4) hunt in the morning, leave during mid-day and return in the late afternoon. Since there are several entrances and exits, traffic counters are not feasible for the entire refuge. Therefore, for portions of the area, vehicle counts via observation during predetermined sampling periods is used. Duck hunting being the only activity, the following strata was developed:

- Weekends (Friday noon to Sunday noon)
- Weekdays (Sunday noon to Friday noon)
- Mornings (Sunrise to noon)
- Late afternoons (Noon to Sunset)
- First two weekends of the season
- First half of the season (Except the first two weekends)
- Second half of the season

For the first two weekends, a 100 percent vehicle count is made. For the remainder of the season, vehicles are counted during 20 percent of each strata. The data for calculating the parameters is obtained by interviewing groups leaving during the same predetermined sampling periods as those scheduled for counting vehicles. In addition, bag checks are made at that time.

So that hunters who remain on the area all day will not be double counted, the proportion of groups interviewed in the late afternoon are analyzed to determine what percent stay all day. Assuming 30 percent of the hunter groups are found to remain the entire day, the afternoon vehicle counts are reduced by this percentage to prevent double counting.

### Case II

At this area, most of the public use during a 60- to 90- day period is wildlife observation along a well-travelled State highway. On weekends, traffic is backed up both ways for several miles by refuge visitors. To estimate the number of vehicles, traffic counters are used. However, not all of the vehicles have more than 2 axles. Therefore, an observer is placed along the highway on a stratified sam-

pling basis--approximately 5 percent of the strata. During this time an enumerator records the number of axles per vehicle and the number of vehicles that can be considered refuge visitors. Assume the following is recorded:

<u>Number of Axles</u>	<u>Size of Group, Observing Wildlife</u>
26	21 people, observing wildlife 6 groups, observing wildlife

Thus, 4.33 axles per vehicle, observing wildlife  
3.50 people per vehicle, observing wildlife

The average length of stay (activity hours) per group is obtained through interviews.

### Case III

At this area, during the summer season much of the public use occurs from boats. Since there are several boat ramps and marinas, it is not administratively feasible to accurately count vehicles via observation or use traffic counters. Therefore, one alternative is to count boats while patrolling the water. However, an even cheaper alternative is to count vehicles at selected boat ramp and correlate all the boating use to these counts as follows:

Group or Boat	Number of People	Activity Hours		Ramps 1 & 4
		A	B	
1	6	4(24)	2(12)	Yes
2	5	3(15)		
3	4		4(16)	Yes
4	6		5(30)	Yes
5	4	3(12)	1(4)	
6	5	4(20)	2(10)	
7	7	3(21)		
8	8	4(32)		Yes
9	3	5(15)		
10	6		3(18)	
10	54	(139)	(90)	4

#### Visitors/Vehicle Ramps 1 & 4

Total	=	54/4	=	13.5 visits/vehicle ramps 1 & 4
A	=	38/4	=	9.50 visits/vehicle ramps 1 & 4
B	=	31/4	=	7.75 visits/vehicle ramps 1 & 4

#### Activity Hours/Vehicle Ramps 1 & 4

A	=	139/4	=	34.75 act. hrs./vehicle ramps 1 & 4
B	=	90/4	=	22.50 act. hrs./vehicle ramps 1 & 4

The above data was obtained through interviewing boaters while on the water during predetermined sampling periods. The vehicles at ramps 1 and 4 are also counted on a pre-determined stratified sampling basis.

#### Case IV

At a given area, there is a sailboat club that has a special use permit to operate out of a basin. The club holds several regattas each year and the club members also frequently operate their boats from the basin. The most economic method of estimating public use is to have ten percent of the club members (families, etc.) report their public use, other than regattas, monthly. The data is then averaged and applied to the entire membership list. The regatta use is provided by club officials.

The above average visit parameters are updated every three to five years. This method could be used for people mooring boats at marinas, homes located along refuge waters, other club membership activities, etc.

#### Cast V

At this area the hunters are required to sign in and out of the areas. More than ninety percent of the hunters comply with this regulation. However, a few convictions were necessary for this cooperation. The self-registration system not only facilitates public use measurement and bag checks, but provides a means for other visitor controls.

#### Case VI

At this costal area most of the public area is from people walking on or arriving by boat. As a result, public use is

measured by counting and interviewing groups on the beach during predetermined stratified sampling periods.

## Panel Discussion

Representatives from some of the agencies present were asked to state their views on the previous day and a half discussion on visitor use measurement. The attempt was to measure the extent of the understanding level achieved and obtain, if possible, a general consensus on the event or events which should occur following this symposium.

Lou Waller: What we want to try to do here with the rest of the time that we have, is have those individuals from the various agencies give some general impressions of what's been said and what's been done here in the last day and a half; and then if they could, briefly go into how this might affect their agency, what they see as some benefits, and whether or not they could deal with one coordinated data collection system. So that's very briefly what we had in mind here, and along the same lines, after, or even while these individuals are giving their impressions, if any of you have ideas or conflicting ideas or impressions, feel free to jump right in and let's get a good discussion going here and really try to find out what people are thinking at this point.

Nat Goodhue, State Division of Parks: Well, I guess my general observation is that basically two types of common data collection systems have been talked about. One is the total recreation demand and the other is recreation demand at designated agency-managed areas, and it would be extremely valuable to have a commonly used data collection system for both types, and if possible, draw some way of interrelating the two to where, for example, sudden changes in visitation to destination recreation sites could be used as an indicator for altering the demand projections that were derived by the random sampling approach that Keith Shone was talking about. So maybe there needs to be two task forces to work, one on each of those two, and then hopefully find a way of interrelating the two. Maybe a starting question would have to be, "What's the purpose of each?" A purpose of monitoring visitation to designated areas seems to be to help agencies figure out what kind of operations and maintenance program they need to operate their facilities adequately, what kind of funds they need from Congress, the State Legislature, or their local borough assemblies or city councils. The reason for an overall demand program is to find out what the people really want, not how they're using what's given to them, but what kind of experience they really are seeking. In other words, to guide the longer-range land acquisition and facility development programs as opposed to the short-range maintenance operations programs.

Lou Waller: How do you see this affecting the State Parks system?

Nat Goodhue, State Division of Parks: Well, the one, the visitation counting system, would be extremely valuable for that part of the Division of Parks which is responsible for the maintenance and operation of the State park system. The overall demand analysis is a direct benefit to one important part of the Statewide Outdoor Recreation Plan, which is an overall general plan for State, Federal, local, and private efforts in the State, that would also be of benefit to the various agencies to guide them in their long-term capital improvement programs, I think as well, which actually is a major purpose of the Statewide Outdoor Recreation Plan.

Another panelist: I've only had about three minutes to collect my thoughts, but I'll lay it on you, my impression of this symposium. As an administrator in a management agency responsible for a management division, I'm wondering about the usefulness of this kind of a meeting, in that there are no decision makers here. If you did arrive at a collective opinion that a standardized, uniform, statewide visitor use, recreational use data collection system is desirable, and I think we've all agreed, at least I've heard no comments to the contrary, that this is a desirable necessity. You know it's like the second coming of Christ--it's going to do a lot of good things for us. But there's no one here who can make that decision. Dr. Thomas talked about 54 agencies in Alaska responsible in one way or another for managing recreation. Fifty-four agencies--that's impossible to coordinate. There may be a possibility, I don't know, I don't see it. I would say, and this is a personal opinion, that, as my colleague mentioned, what we probably need is a benevolent dictator to just say we're all going to do it--you will do it. I think the best benevolent dictator we can come up with is Dick Montague. Dick Montague is director of the Division of Tourism and has the first and biggest crack at the visitor tourist to the State. Perhaps he is the person who, through contracts and whatnot, should be coordinating and establishing these types of data collection systems. As the administrator again of a management division, I was listening for things that would tell me how this data could be used in an action program; how it would improve our efficiency and improve our allocation of priorities of funds. The nuts and bolts part of this symposium was great, and I don't mean to downplay it, but if I was getting involved in this, I'd just call my biometristian and say "work up a program." So I sort of tuned out that part. Have I missed anything? I'll rest for awhile.

Bill Thomas, BOR: As you said, and I agree, the goodness to be derived from having a standardized method, if you want to call it that, I think we all agree on it. I don't think it was a surprise and I don't think it would have been a surprise ten years ago. However, it hasn't been done. There is little coordination. I think we're selling the need for it a little short when we talk about our existing areas. Yes, that is a need. I think one of the biggest needs is to try to do a better planning job on the 83 million acres or something less than that to be satisfied for new areas as well as the State selections. I think they need the best possible data to plan those areas, to plan their benchmark uses as to when they would need more development, when they would need more regulations to protect the environment, and settle them so they could in fact implement them when they were needed as opposed to a few years after they were needed, as has been the case in Yellowstone and other places across the country. I was likewise disappointed in them, you might say, attendance at the meeting. Maybe there is a difference of opinion as to who it is important too. I think one of the people it would be most important to would be the National Park Service. I don't think the State Office was represented at the meeting. Not to pick on them, but I agree that it is important enough that it should have brought out decision makers and it should have brought out agencies.

Question: Why don't you think it did? It's been said twice that it didn't bring out administrators. Why not?

Bill Thomas, BOR: I don't know if the word didn't quite get to them, whether we failed on that or, as has been the case in the lower 48 in the number of times we have tried this type venture. . . They're not too keen on changing any of their systems and fighting with their own Washington Office and not doing things exactly like the Washington Office. Most agencies I think have a tendency to like to stay within their boundaries and not get out of that boundary unless they can see an immediate benefit for their agency. I think the benefit here may be a little long term. The 54 agencies, right, I don't think we should even consider trying to coordinate 54 without a dictator. I don't think there are 54 that have that much input. I think we all know who the major agencies are and there's not that many and if we could get everybody coming down the road together, I don't think it would be that difficult to come up with a system that the major agencies would buy. You need commitment. What we were hopefully going to do at this meeting, was sell people on the commitment. As I see it, to be workable, you will need an actual agreement, a memorandum of understanding, between the State agencies and the State with regard to

using the system when it was derived and not changing it unless changed as a group. The vehicle for it, I would like to say, that as the BOR Alaska Office decision maker that I would assign staff to it. We are a small agency. I have requested staff to work on this. I think it's a proper role for BOR to take up if I could get the manpower and the money. We do have the responsibility to promote coordination among the Federal agencies. We have no authority to make them follow unless they want to. The other possible vehicle, if you could call it that, would be the council that is composed of the Lieutenant Governor and all the major recreation agencies. That might be a way to go with it if the State cared to take the lead in it. So, as I see it from here, I think we've had a very beneficial meeting. I think a lot has been said, and while at least the Federal decision makers may not have been here, when we get the minutes of this meeting and everything in nice form, I would hope that Lou would invite me to go with him and we will then carry it there and give it to the decision makers on a one-on-one basis. If

the next thing to do would be go to \_\_\_\_\_, which is what I think should be done now.

(Changing tapes)

Vic Lonn, U.S. Forest Service: I do think it's a benefit at least on a professional basis to exchange and get together. We may not have had a lot of the decision makers here, but a lot of us, I think, influence these decisions to quite a degree. And I think it's of benefit to get together and to recognize where we have deficiencies and where we have things that need to be done. I think that the leadership role in something as fragmented as this, over so many Federal and State agencies, probably does bide with the State and as a first step in something like this would be maybe logically be collecting together of what is available now. I don't think any of us have a real complete picture of what is already available and I'm sure there are a lot of improvements that could be made in the future. But maybe a first step would be for the State to take a leadership role in collecting together what is now available, and then seeing where we want to go from there. There is a lot available, I think. I know in our organization there is. We have the RIM system, the Recreation Information Management System, which is a computerized system. It utilizes units of visitor days and visits. But like Dr. McCurdy was pointing out, you can switch around converting factors and multipliers to activity hours, visitor hours, or however you want to use it. I think our position would be that we would not want to impose a second system onto a fairly sophisticated system

which we now have, and that anything that developed that would involve us we would like to be able to fit within the framework of what we now use. One of the weakest areas that we have and one of the big impacts that we have in Alaska, whether it's on national forest, national park, or State land, is the measurement, interpretation, and management of dispersed use--a tremendous amount of dispersed use. And I think this is a problem that we don't have a good handle on. I feel very weak in it from our own experience. Probably, somewhere in the vicinity of 40 per cent of our use is dispersed. But that is not representative because we have a lot of developed sites and we get an awful lot of developed site use, particularly on the Kenai Peninsula. But on a statewide basis, probably 60 or 70 percent of the total use is dispersed, or maybe even more. I wouldn't be surprised if it would even exceed that. And that's something that we don't have a good handle on that has a big impact. I guess that's really all I have. Maybe we could have an exchange and have one thing lead to another here on this panel, but that's my basic thought to start off with.

Lou Waller: There are a number of other agencies here that I didn't ask to sit up front, but I'm sure you have some feelings. What I thought was we would go through this, and this would stimulate discussion. Maybe we've said all there is to say. I don't know. Jim or Ron, or some of you others, maybe have some impressions that vary somewhat from what's already been said.

Ron Smith, BLM: I don't have any impressions that vary too greatly from what the gentlemen have already indicated but I would like to broach a question to the entire group and that is, "where do we go from here?" I'd like to hear some dialogue on that. If we have created, in fact, a foundation on which to build during the course of these two days, then we ought to perhaps at least start the outline, blueprint if you will, of where we go now.

Lou Waller: At one time, I was thinking of a detailed working group type of meeting but since that time we've backed off from that and tried to involve the decision makers and tried to get those people here to sell the concept to, and in particular, to point out how it's going to benefit them, why we should be doing this, and what good is it going to do you. From what's been said, we've sold the concept but maybe not to the decision makers. But this is the next thing and I'll throw out what I've been thinking concerning the question "where we go from here?" The answer is simply a recommendation. If we can get a consensus here for a recommendation, as to what needs to be done, and my

thoughts on that are a committee, preferably headed up by one agency, or co-heads of the committee, possibly BOR and a State agency, or BOR entirely, or a State agency entirely. But a recommendation for a committee to begin to identify, as Vic mentioned, what do we have now, to define some standard terminology for the state and begin to move in the direction where we can have somewhat standardized data for the many benefits that have been identified in the last day and a half. Now, are there some other thoughts on that? Is this not acceptable or acceptable to everyone?

Nat Goodhue, State Division of Parks: I think we already have a forum for discussion in the Alaska Parks and Recreation Council. Why can't we use their resource? It's already existing. Why can't we draw on that organization or that group to utilize that experience they have.

Lou Waller: Well, we approached the Lieutenant Governor on this issue, trying to use that as a vehicle to actually get this meeting going and bring out the things that have been said here in the last day and a half. With the other priorities that he has right now, he didn't feel that he wanted to hold a meeting of the interagency council and himself be chairman of the meeting. He was very interested in the topic and he did want to be here and he did have some ideas and thoughts on it. But as you all know, he was pulled back to Juneau yesterday. So we have tried to go that route and that still is a very definite possibility.

Unknown: Did he just come in for this particular meeting now or did he give you a time frame when he would in fact consider a meeting of the interagency council?

Lou Waller: I didn't talk to him personally, but the feedback I received, and Ron might correct me on this, was that he wasn't sure exactly how he wanted to organize and handle the Parks and Recreation Council. And Nat might have more information on this, I don't know.

Vic Lonn, U.S. Forest Service: One of the basic questions you're going to have to answer before you can arrive at some of these decisions is who's going to benefit and to what degree. Where do the benefits lie? And then that's going to give you some handle on who's going to be interested, and maybe we need to work on that.

Lou Waller: Well, personally I think we could all benefit.

Vic Lonn, U.S. Forest Service: That's what I say-- who, and to what degree.

Lou Waller: But the degree might be something else.

Ron Smith, BLM: The degree is dependent upon the degree of sophistication that each agency has in its already existing data gathering system. I know the system that you have, Vic, and you're getting pretty good stuff. I know that on the other hand BLM has not emphasized visitor use data gathering. Even though we do have in-house systems, we have not emphasized it in Alaska. But the time is now when we will be moving out in that direction. Another comment in regard to the interagency committee of the Alaska Parks and Recreation Council. Lieutenant Governor Thomas isn't sure he wants to carry on the IAC along the same format that Lieutenant Governor Boucher did. The thing that we all need to remember is that is a group of decision makers and so, again, I go back to my original question--"where do we go from here?" However, if IAC is reconstituted, probably six or eight months down the road they probably will have gotten to that point in their priorities that there will be a meeting called of that group. If this symposium can come up with some kind of a positive recommendation to lay before the IAC, when and if they have that meeting, then we do have the ears of the decision makers at that point in time.

Nat Goodhue, State Division of Parks: I think this group can put two recommendations, two types, before the Lieutenant Governor as Chairman of the Council. One, is what kind of organization or vehicle he'd like to see handle this task, and secondly, just the nuts and bolts of how to go about it. In other words, there's a bit of vacuum and a group that has met like this I'm sure would command the ear of the Lieutenant Governor as a source of advice and input. I don't know of any other group that's convened and in a position to give him ideas as to how to proceed with the council.

Unknown: I'd just like to make a comment for the Fish and Wildlife Service. I'm not a decision maker and I can't speak for them, but I think to make the thing more palatable to these decision makers we have to consider those agencies or areas where sophistication has been built into the data collection system already. I think we need to look at those areas and whatever we come up with has to be compatible with what type of data coming out of those areas or to be drawn out of that data without a whole new collection system on the agency. Because I don't think \_\_\_\_\_ because quite a bit of money and time they've spent in the collection

system they've got right now is \_\_\_\_\_ I don't know how many agencies are collecting very sophisticated data, but certainly we can take those into consideration.

Larry Kajdan, BLM: Lou, one of the reasons that you had set the thing up to start with is, as you brought out three weeks ago, the changing land status and the fact that development is hindered now because no one knows for sure what lands they will be managing. So this was the opportunity to get together now and get a common data base for use so this could be handed, so to speak, to whoever does get the land. And I didn't really hear that come out too strong during the meeting. This is really one of the biggest benefits to getting this data base.

Lou Waller: I think there's really several reasons for trying to do this now. One being that the land status in five years or 20 years, whenever it settles down to the point where we can begin to construct and go on with these other types of things that you have to do for recreation management. We would have a data base to be able to make the proper decisions, to prevent some overlap or duplication in the facilities and the opportunities that we would be providing. Another reason I think is that right now we're facing a gigantic increase in population growth and it might have some change in the use patterns because of the increased traffic and this type of thing. Also from an educational standpoint, I don't know this for a fact, but I have felt that new people coming into the State are more receptive to an educational effort rather than someone who's been here for a long time. So the time is right to educate the public as what they can or can't do and so on in the recreation area in the state. And there are a number of other reasons we could get into why we need this data base, and you're right, a lot of them haven't come out, but a lot have and we pretty much agreed that everybody feels there is a need for it. And the next step appears to be where do we go from here. And maybe what Nat has said, that we could have, even though all of us aren't major decision makers with our respective agencies, maybe we could have an influence or a great deal of influence on those who are and what we finally come up with in this symposium or others that might occur in the future. I'm not sure where that leaves us right now.

Bill Thomas, BOR: The people that gain from this exercise, at least I'm convinced, is the public by having the public areas better planned. I do not believe there is agency in Alaska that is so great and so sophisticated today that they couldn't get a lot of good from being able to plug in data from all the other agencies in Alaska. I think that, well,

if they think that were true, that most of the most sophisticated would still be willing to change some because I think it would improve, it would have to improve every system that got coordinated with other systems, just by the amount of data would have into their system.

The other point, while I'm at it was toyed around with this, Keith can verify it, I guess, for a number of years, in the northwest where I think we've been rather successful. In fact, I haven't discussed the point with Keith, but I don't think he has names on the lines yet, whereby they are committed to this system, which I think he probably would do well to try to get. But until such time, as regards what vehicle you use, until such time as you have at least one man funded with a lot of time to spend, it's not going to be done. It's the type thing that if a man has it just as a side duty, like you did setting this up, and I remember how many times we cancelled it because of your other duties in BLM, and until we get down to the place where we have at least a man, and hopefully maybe a couple, to spend lots of time to get out and find out for sure what the other agencies all have and start to work on it, then it won't get done. We could have a monthly meeting for the next five years and be not much further than we are today, until somebody sits down and starts pulling together.

Rupe Andrews, Alaska Department of Fish and Game: You've got a good point there, Bill. Of the agencies represented here, I don't think it was brought out what data collection studies we're carrying on right now and what we plan for the 1975 season. One very important study that's going to be conducted this year is the five-year Fish and Wildlife survey. This survey is conducted every five years. The last time was 1970. The total sample in Alaska was, I think, two people, and we've talked to some of the Washington people on this already about expanding that particular study in Alaska this year--the sampling program. That's just one very important data collection study that's going on. It's economic, it's harvest use rate, it's participation rates, there's a lot of data in that, and there's also the U.S. Census. And you can tie into that for additional money. But anyway there's a lot of these things going on and I don't know if there's one man alive in the State that really has his finger on an active list of these things right now. Because everyone has varied and specific problems that they create a data collection program to solve. We do it. We have to do it. You do it. All the agencies. You're right--we need a coordinator. I mentioned Dick Montague or someone in his shop that might be the spearhead for this. And step 2, we all throw our dollars into the hat right now. How

many dollars have you got to finance this thing? If you haven't, we all had better go home right now.

Unknown: Aren't you talking about really a medium to convert the methods each agency uses into one method everyone can understand?

Rupe Andrews, Alaska Department of Fish and Game: Right. You've got to collect it and you've got to put it into a form that's understandable and usable. In some way it has got to be disseminated, as Dr. McCurdy said here the other day. And this is the vehicle and it all costs money. Somebody's going to have to do it and you have to pay salaries, printing.

Unknown: The actual collection is what the agencies are doing already. I think what you have to pay for is whatever medium you use to convert it into something that's applicable to everybody. Once the data's already collected, I don't think you will have to worry about getting money to actually collect the data.

Rupe Andrews, Alaska Department of Fish and Game: What I'm saying is there's no free lunch and that there are studies going on and that there's a lot of data laying around in different agencies. The Forest Service has an excellent system of collecting data and on the three forests they've got this data. But you haven't got a copy of it. I haven't got a copy of it unless I call up. I can get a copy, but it's not in one central location. You're going to have to dig for that. A good place for a BOR contract.

Dr. McCurdy: You know, Vic, the Forest Service in their RIM system, they do have a central place for all Forest System data. It wouldn't hurt to have something comparable for all agencies in Alaska. Everybody supply their data into it.

Unknown: Even you could have different data collection systems as long as they use factors, whatever the factors may be, to make them comparable, and you could program in, if the Forest Service was collecting RIM data in the same manner that it has collected in the past and BLM is collecting data, it doesn't have to be the same data as long as you end up with the same comparable product.

Dr. McCurdy: As long as you don't have to end up comparing apples and oranges I see no problem.

Unknown: So I think the idea of a coordinator, someone with a damn good idea of how recreation data is collected, and how it is used or manipulated in the right idea. We need also to know how data is being collected now, then to try to decide how can you make it comparable. When that is done I think you could still have a series of twenty different systems; maybe considerably different systems that would still give you the end result of very good comparable data.

Vic Lonn, U.S. Forest Service: I think getting right down to being practical about it, I think that's what you're going to end up with, because we all do it for different purposes, with different methods, with different end objectives in mind.

Unknown: As long as you see what you need, when it's over what you want, and then everything feeds into what final purpose or goal is, so then you can manipulate the various numbers that you have.

Unknown: I'm sure that on a statewide basis we still haven't got down to even coming to a consensus on that. I guess we've talked around it, on whether this is a State role. I tend to believe it is. But on a statewide basis, I'm sure that on a statewide situation, they might be very interested on 20 percent of our data, but they might could care less about the other 80 percent. There are fragments of it or parts of it that would be very important and very relevant to a total State picture, but there would also be a lot of it that would not be necessary, so you don't need to make the thing overly cumbersome just because it's all there by collecting all of it. There's a lot of it that probably would not be relevant to a statewide picture, and I think this is probably, if we get something settled and something happens further than this, which I hope it does, it should start out on a small basis to begin with, maybe picking half a dozen real critical areas that are needed from a statewide viewpoint and concentrate on these to get a basic system implemented or working that does work, and then if we want to go big, or if the State wants to go big, we can expand it. But rather than jump in completely up to our chins at first, I'd say let's pick a few things that are relevant and important and see if that works and then go from there. Dr. McCurdy said the same thing the other day--you want to wade in rather than dive in.

Lou Waller: I think that's a good point. I think also that if we really sat down, all the agencies sat down, and began to identify what their needs for data were, there would be a great deal of similarity there, in some of the key areas, anyway, probably not in everything, like you were saying.

Vic Lonn, U.S. Forest Service: There's another side point. There are two really important impacts that are related here. One of them is the statewide impact economically, the economic impact, on the statewide and regional basis, and then there is the resource impact or the impact on the resource which I think probably we get concerned with very much at the agency level. You know, how many people can we stand in this area, or how much fishing can this lake stand, or how many hikers can this trail stand before we have to start restricting it or we get serious resource damage. So there are two real significant things involved and they play different roles or have different importance depending on where you are, on the state level or on the organizational level.

Rupe Andrews, Alaska Department of Fish and Game: That's a very important point, Vic. You know on the Tongass Forest you can create demand, you can manipulate use by the numbers and kinds of facilities that you construct. And there's a very close, cooperative program between ADF&G and the Forest Service on the Tongass Forest in planning not only the construction but the actual location of various facilities. You don't use a tent too much around Southeast because of heavy rainfall. Cabins are the answer. And by actually manipulating where and how many cabins, you can manipulate the use. Where you need a data collection study after that is to evaluate your management decision and the impact that it's having. And quite simply, I'll take the Setuck River just as a quick example. You have a cabin on the lake, one at midstream, and one near the mouth of the stream. You can manipulate pressure by closing one of those cabins. You've got a lot of use for a year or whatever your time period is. You can do a lot of things in Southeast that are much more difficult here in southcentral to use, or to try I would say. We're looking at a problem now, just for some side information. Forest Service, and ADF&G are working this year in Yakutat. That's been designated as a prime area. It didn't take any sophisticated data study to come up with that because the Federal Government and other agencies have informed us that there's going to be some offshore oil drilling and there's going to be 4,200 people plunked right in Yakutat. That's good empirical data there. So we have a pretty fair idea of what the use is already through the Forest Service's RIM data. And that's going to be a major part of how we come up with a plan this year.

(Changing tape)

Lou Waller: We can identify each agency representative here and say that they are 100% for something of this type, but maybe a better thing to do is to simply say . . . What I'm looking at here is we're going to get everything transcribed first of all, the speakers and the ideas that have come out here today. I'd like to be able to summarize with some recommendations of the question that has been raised, where do we go from here, what needs to be done now?

I guess this is what I'm kind of groping at, at this point. Whether it's the interagency council for parks and recreation or whether it's a separately funded by all agencies group or whether the BOR takes it on as an extra task that they're not now doing or whether we try to work up an interagency committee or subcommittee for lack of better term. There's a number of different alternatives I think that might be recommended here, but what, if any, is acceptable to everybody?

Nat Goodhue, State Division of Parks: I think that just about every single example you gave there had a lot of merit to it and perhaps they all sort of pool together. There is an existing structure, the interagency committee of the Alaska Parks and Recreation Council. There is an agency that's already doing a common data collection system, not just in one State but bringing three states together. That's the Bureau of Outdoor Recreation, Northwest Region. Why not establish a task force within the interagency committee of people from the concerned agencies to work under the chairmanship of the people who have already gone through this, or at least part of it? Maybe they haven't covered all aspects of the common data collection system that we need up here, but they've covered some aspects of it in the states of Oregon, Washington, Idaho and part of Montana. Make this suggestion to the Lieutenant Governor as chairman of that interagency committee and see how he reacts. But then there's the other aspect that was mentioned by Rupe, and that is the funding. Keith has said that there is a five to ten thousand dollar data processing cost that's been built up within about a year's period of time. Another point that I think is completely valid is if some agency doesn't have a staff person who can make this their major effort of concern, it won't happen.

Lou Waller: Right now I don't know of any agency who has that one body.

Different speaker: How about the Bureau of Outdoor Recreation?

Lou Waller: They don't right now.

Question from back of room: If I interpret the direction that this group is moving right now, it is not nearly so much toward a standarized data acquisition system as a standardized data conversion system. For data as it exists today, and I guess you would call it internal data, data on various parts of the State. Okay, that's one aspect. The other one is that Dick Montague indicated that they were sampling of people coming into the State on a statewide basis, that his division was going to do this and do it right away, so apparently this is already on the drawing board at least and very close to being implemented on a statewide basis. I really think that you ought to be drawn back to this before we get much further in that type of a discussion to see just how close he is to setting up a sampling designed to measure people coming into the State.

Lou Waller: I just wanted to bring up one other point. I think you're probably right. I'm sure you're right. We need to keep Dick involved here and know what he is doing. I remember him mentioning that yesterday, that he is looking at a system similar to what Hawaii has on the people coming into the State, which I'm sure would be helpful to almost everybody, just the sheer headcounts. But the point I was going to make is that what BOR has done in the northwest is primarily develop a model as a planning tool and using the existing data and converting that into a similar data base, and I think from what's already been said, it would definitely be too much to ask the Forest Service to do away with their RIM system. We couldn't ask the Fish and Wildlife Service to do away with their system and on and on. So there is going to have to be a conversion of some type to make things comparable here and I think that's the key thing that has come out the whole time. Do we have to have comparable data for our own purposes? Unless there's more that needs to be said that hasn't been, why don't we go ahead and analyze this and try to make the kinds of recommendations or the things that have been said here at the end in the final product of this.

At this point I'd like to just say that initially, I was very hesitant about being involved because of my status with BLM. I am a BLM employee and I recognize the number of different kinds of interagency jealousies, or whatever you want to call it, that might initially turn out to be a barrier to any exchange of ideas. And the whole purpose for the BLM getting involved is that we recognized the problem and that is the reason for this symposium--to bring the problem up to those agencies that are involved and I think it's proper at this time that the BOR or whoever can finally take it over, that they should and BLM would be more than

willing to go alongwith the other agencies on whatever is developed finally and I think willing to cooperate to the fullest extent possible. So unless there is other comment, I think that's about it then, and I sure do thank everybody for coming, and for the time that you've taken. And I think we've accomplished quite a bit in the last day and a half and there's a lot more to do.

Different speaker: I'm unclear what the next move is.

Lou Waller: Well, everybody that has been here will get copies of the transcripts and we will hopefully rely to some extent on Bill and the BOR. We will make recommendations to the Lieutenant Governor with the interagency council. We'll try to make all the recommendations or all the suggestions that have come out here today. Personnally, I see no problems with any of the things that have come out in the last few minutes, and unless somebody else does have some real problems, I think those things should be included in the final product.

Another speaker: I think there ought to be a meeting held with this recreation council--a request for a meeting. Now you're not going to get commissioners, but they can designate someone.

Remainder of discussion lost due to technical difficulties in recordation.

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